IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF ILLINOIS

CALEB BARNETT, *et al.*, Plaintiffs, vs. KWAME RAOUL, *et al.*, Defendants.	Case No. 3:23-cv-209-SPM ** designated Lead Case
DANE HARREL, *et al.*, Plaintiffs, vs. KWAME RAOUL, *et al.*, Defendants.	Case No. 3:23-cv-141-SPM
JEREMY W. LANGLEY, *et al.*, Plaintiffs, vs. BRENDAN KELLY, *et al.*, Defendants.	Case No. 3:23-cv-192-SPM
FEDERAL FIREARMS LICENSEES OF ILLINOIS, *et al.*, Plaintiffs, vs. JAY ROBERT "JB" PRITZKER, *et al.*, Defendants.	Case No. 3:23-cv-215-SPM

DECLARATION OF LOUIS KLAREVAS

I, Louis Klarevas, declare as follows:

1. I am a least 18 years old and have personal knowledge of the statements contained in this declaration;
2. The statements contained in the expert report I authored in this case, dated May 10, 2024 and attached hereto as Exhibit 1, are true and accurate;
3. If called to testify in this case, I would testify to the matters set forth in my expert report. My testimony would be consistent with all of the statements in the report, which includes a description of my qualifications as an expert witness, a complete statement of all opinions I would express, and the basis and reasons for those opinions.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Date: May 10, 2024

at Nassau County, NY

Louis Klarevas

EXHIBIT 1

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REPORT OF LOUIS KLAREVAS

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I. PROFESSIONAL QUALIFICATIONS

I am a security policy analyst and, currently, Research Professor at Teachers College, Columbia University, in New York. I am also the author of the book *Rampage Nation*, one of the most comprehensive studies on gun massacres in the United States.[1] I am a political scientist by training, with a B.A. from the University of Pennsylvania and a Ph.D. from American University. While my early career focused on the intersection of public opinion surveys and national security, my current research examines the nexus between American public safety and gun violence, including serving as an investigator in a study funded by the National Institutes of Health that is focused on reducing intentional shootings at elementary and secondary schools.

During the course of my nearly 25-year career as an academic, I have served on the faculties of George Washington University, the City University of New York, New York University, and the University of Massachusetts. I have also served as Defense Analysis Research Fellow at the London School of Economics and Political Science and as United States Senior Fulbright Scholar in Security Studies at the University of Macedonia.

In addition to having made well over 100 media and public-speaking appearances, I am the author or co-author of more than 25 scholarly publications and over 70 commentary pieces. In 2019, my peer-reviewed article on the effectiveness of restrictions on large-capacity magazines (LCMs) in reducing high-fatality mass shootings resulting in six or more victims killed was published in the *American Journal of Public Health*.[2] This study found that jurisdictions with LCM bans experienced substantially lower gun massacre incidence and fatality rates when compared to jurisdictions not subject to similar bans. Despite being five years old, this study continues to be one of the highest-impact studies in all of academia. It was recently referred to as "the perfect gun policy study," in part due to the study's "robustness and quality."[3]

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[1] Louis Klarevas, *Rampage Nation: Securing America from Mass Shootings* (2016).

[2] Louis Klarevas et al., "The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings," 109 *American Journal of Public Health* 1754 (2019).

[3] Lori Ann Post and Maryann Mason, "The Perfect Gun Policy Study in a Not So Perfect Storm," 112 *American Journal of Public Health* 1707 (2022). According to Post and Mason, "Klarevas et al. employed a sophisticated modeling and research design that was more rigorous than designs used in observational studies. Also, they illustrated the analytic steps they took to rule out alternative interpretations and triangulate their findings, for

In the past five years (since January 1, 2019), I have been deposed, testified in court, or testified by declaration in the following cases (all in federal court), listed alphabetically by state:

California – Central District	
Rupp v. Bonta	8:17-cv-00746-JLS-JDE
California – Eastern District	
Wiese v. Bonta	2:17-cv-00903-WBS-KJN
California – Southern District	
Duncan v. Bonta	17-cv-1017-BEN-JLB
Jones v. Bonta	19-cv-01226-L-AHG
Miller v. Bonta	3:19-cv-1537-BEN-JBS
Nguyen v. Bonta	3:20-cv-02470-WQH-MDD
Colorado	
Gates v. Polis	1:22-cv-01866-GPG-SKC
Rocky Mountain Gun Owners v. Town of Superior	1:22-cv-02680-NYW-SKC
Connecticut	
National Association for Gun Rights v. Lamont	3:22-cv-01118-JBA
Grant v. Lamont	3:22-cv-01223-JBA
Hawaii	
National Association for Gun Rights v. Lopez	1:22-cv-404-DKW-RT
Illinois – Northern District	
Viramontes v. Cook County	1:21-cv-04595
National Association for Gun Rights v. Highland Park	22-cv-04774
Herrera v. Raoul	1:23-cv-00532
Kenneally v. Raoul	3:23-cv-50039
Illinois – Southern District	
Harrel v. Raoul[*]	23-cv-141-SPM
Langley v. Kelly[*]	23-cv-192-SPM
Barnett v. Raoul[*]	23-cv-209-SPM
Federal Firearms Licensees of Illinois v. Pritzker[*]	23-cv-215-SPM

example examining both state bans and federal bans. They helped build the foundation for future studies while overcoming the limitations of previous research." *Id.*

Massachusetts	
National Association for Gun Rights v. Campbell	1:22-cv-11431-FDS
Oregon	
Oregon Firearms Federation v. Kotek†	2:22-cv-01815-IM
Fitz v. Rosenblum†	3:22-cv-01859-IM
Eyre v. Rosenblum†	3:22-cv-01862-IM
Azzopardi v. Rosenblum†	3:22-cv-01869-IM
Washington – Eastern District	
Brumback v. Ferguson	1:22-cv-03093-MKD
Banta v. Ferguson	2:23-cv-00112-MKD
Washington – Western District	
Sullivan v. Ferguson	3:22-cv-5403-DGE
Hartford v. Ferguson	3:23-cv-05364-RJB

*Non-Consolidated Cases on the Same Briefing Schedule / †Consolidated Cases

In 2021, I was retained by the Government of Canada in the following cases which involved challenges to Canada's regulation of certain categories of firearms: *Parker and K.K.S. Tactical Supplies Ltd. v. Attorney General of Canada*, Federal Court, Court File No.: T-569-20; *Canadian Coalition for Firearm Rights, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-577-20; *Hipwell v. Attorney General of Canada*, Federal Court, Court File No.: T-581-20; *Doherty, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-677-20; *Generoux, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-735-20; and *Eichenberg, et al. v. Attorney General of Canada*, Federal Court, Court File No.: T-905-20. I testified under oath in a consolidated court proceeding involving all six cases in the Federal Court of Canada.

I have also submitted declarations in the following state court cases: *People of Colorado v. Sgaggio*, District Court, El Paso County, Colorado, 2022M005894 (Criminal); *Guardian Arms v. State of Washington*, Superior Court, Thurston County, Washington, 23-2-01761-34 (Civil); and *State of Washington v. Gator's Custom Guns*, Superior Court, Cowlitz County, Washington, 23-2-00897-08 (Civil).

A true and correct copy of my current curriculum vitae is attached as **Exhibit A** to this report.

I have been retained by the State Defendants to render expert opinions in this case. I am being compensated at a rate of $480/hour for my work on this report, $600/hour for any testimony (including deposition testimony) in connection with this matter, and $120/hour for travel required to provide testimony.

II. OPINIONS

Based upon my extensive review and analysis of the material cited in this report, I have come to the following professional conclusions on the ownership and use of assault weapons and LCMs:

- *Data Sources on the Circulation and Ownership of Assault Weapons and LCMs Are Problematic.* Most sources that have attempted to gauge circulation and ownership of modern sporting rifles and LCMs are methodologically flawed and, therefore, unreliable. The bottom line is that the number of assault weapons and LCMs in circulation or that are personally owned by American gun owners is unknown. As such, the circulation and ownership rates for assault weapons and LCMs are indeterminable. One aspect of firearm circulation and ownership that is known with reasonable certainty is that handguns are the most common type of firearm in circulation and personally owned—not rifles, and most certainly not rifles that qualify as assault weapons.

- *Unlike Circulation and Ownership Data Sources, There Are Multiple Reliable and Valuable Data Sources on the Use of Assault Weapons and LCMs.* While assault weapons as well as firearms with LCMs are used to perpetrate violent crime, particularly the murder of police officers, their most prominent criminal use appears to be to perpetrate multiple-victim shootings. Mass shootings resulting in double-digit fatalities are relatively modern phenomena in American history, related to the use of assault weapons and LCMs. In the present era, high-fatality mass shootings, resulting in six or more victims killed, pose a significant—and growing—threat to American public safety. In particular, high-fatality mass shootings involving assault weapons and/or LCMs, on average, have resulted in a substantially larger loss of life than similar incidents that did not involve assault weapons and/or LCMs. Most high-fatality mass shootings now involve assault weapons and LCMs, which serve as force multipliers associated with higher average death tolls when used. Comparing offensive to defensive uses shows that assault weapons are used by civilians with a far greater frequency to perpetrate mass shootings than to stop them. Indeed, in terms of defensive gun uses, in general, the quintessential firearm used by the majority of gun owners appears to be the handgun. This may even be the case for owners of AR-15-style rifles, who appear to use handguns, not rifles, in the majority of their defensive gun uses.

III. CIRCULATION AND OWNERSHIP OF ASSAULT WEAPONS AND LCMs

Based on national survey data, we can approximate that roughly three-in-ten adults (aged 18 or over) in the United States personally own at least one firearm. Two recent surveys, in particular, collected data that help us approximate how many firearms are privately owned by American adults. According to a Harvard University survey, 28.8% of individuals aged 18 or over personally own at least one firearm.[4] Given the 2023 U.S. Census estimate that the adult population is approximately 262.1 million people, this suggests that about 75.5 million American adults are presently gun owners. The Harvard survey also found that the (mean) average number of guns personally owned by respondents who identified as gun owners is 4.6 firearms.[5] This suggests that, currently, there are approximately 347.3 million firearms that are privately owned by American adults. Similarly, a recent Gallup poll found that 30.0% of American adults personally own a (mean) average of 4.9 firearms.[6] This suggests that there are approximately 78.6 million adults who privately own approximately 385.1 million firearms. As these two bounds are not far apart, a reasonable working mean average can be calculated: *approximately 366.2 million personally-owned firearms in the possession of approximately 77.1 million adults in the United States*.[7]

According to the National Shooting Sports Foundation (NSSF), the trade association for the firearms industry and one of the plaintiffs in this litigation, in terms of the share of firearms by category (handguns, rifles, and shotguns) between 1990 and 2021, the distribution of the domestic stock is dominated by handguns, which make up 54% of all firearms produced for the U.S. market (see Figure 1). However, the distribution of personally-owned firearms held by American adults

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[4] Matthew Miller, Wilson Zhang, and Deborah Azrael, "Firearm Purchasing During the COVID-19 Pandemic: Results from the 2021 National Firearms Survey," 175 *Annals of Internal Medicine* 219 (2022).

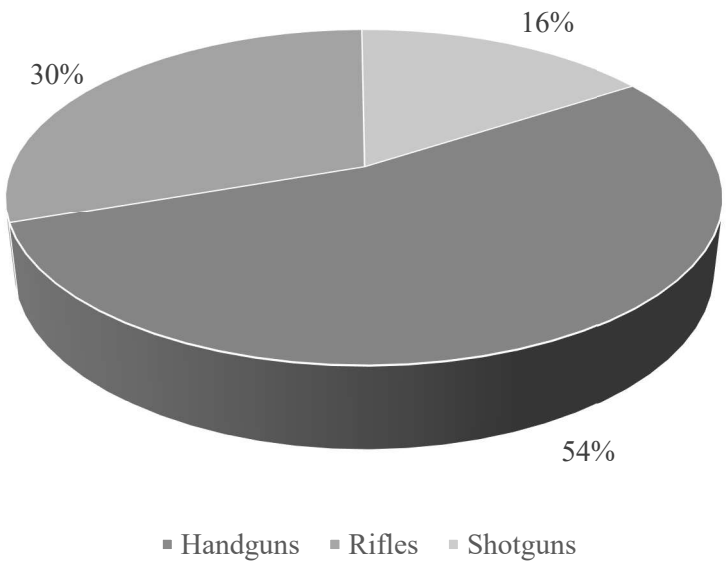
[5] *Id*.

[6] Jeffrey M. Jones, "Majority in U.S. Continues To Favor Stricter Gun Laws," Gallup, October 31, 2023, available at https://news.gallup.com/poll/513623/majority-continues-favor-stricter-gun-laws.aspx.

[7] A survey of gun owners conducted by Georgetown University professor William English in 2021 found that 81.4 million American adults personally own firearms. A review of the survey data indicates that these 81.4 million firearm owners possess an average of 5.9 guns. William English, "2021 National Firearms Survey: Updated Analysis Including Types of Firearms Owned," Unpublished Paper (May 13, 2022; Revised September 22, 2022), at 7, Bates Numbers FFL SHARED 001030-001075, also available at https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=4283305. As discussed below in greater detail, there are ethical and methodological concerns about this survey and Professor English's analysis of the survey data that render these estimates questionable and, therefore, unreliable.

is different. According to the recent Harvard University survey, while, again, handguns are the predominant firearm, private individuals own more shotguns than rifles (see Figure 2).[8] The data indicate that while private individuals might have a stronger preference for shotguns over rifles, this pattern would not necessarily reflect the preferences of other groups that possess firearms which are not personally owned but nevertheless contribute to the domestic stock: law enforcement and security agencies, firearm wholesalers and retailers, firearm instruction centers, shooting ranges, and gun clubs. That said, regardless of which metric is used—domestic stock or personal firearms privately owned—handguns are the most common firearms.

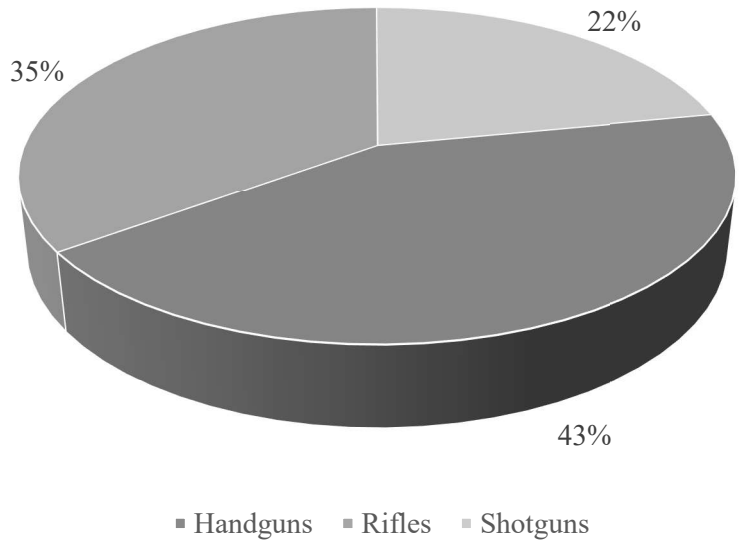
Figure 1
Breakdown of All Firearms in the Domestic Stock of Firearms (by Category)



Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 16, Bates Number NSSF 000050.

[8] The survey of gun owners conducted by Georgetown University professor William English in 2021 also found that handguns make up the predominant share of personally-owned firearms. *Id*., at 20-21, Bates Numbers FFL SHARED 001049-001050. However, the underlying survey data show the distribution to be 41% handguns, 35% rifles, and 24% shotguns. Again, as discussed below in greater detail, there are ethical and methodological concerns about this survey and Professor English's analysis of the survey data that render these estimates questionable and, therefore, unreliable.

Figure 2
Breakdown of Personally-Owned Firearms in the United States (by Category)



Source: Matthew Miller, Wilson Zhang, and Deborah Azrael, "Firearm Purchasing During the COVID-19 Pandemic: Results from the 2021 National Firearms Survey," 175 *Annals of Internal Medicine* 219 (2022).

IIIA. Assault Weapons

Like firearms in general, assault weapons also fall into three categories: handguns, rifles, and shotguns.[9] Occasionally, people advance arguments about the possession and use of assault weapons using proxy variables. The use of such proxies involves significant limitations. For instance, those who pursue this line of reasoning rely on circulation as part of the domestic stock of firearms (akin to manufacturing and importation data) or personal ownership of firearms by private civilians as proxies for how exactly firearms are used. However, gun use, in the active sense, generally involves discharging or brandishing firearms—activities that are not reflected in circulation and ownership statistics.

[9] In the State of Illinois, assault weapons are statutorily defined at 720 ILCS 5/24-1.9(a)(1)-(2). Unless stated otherwise, in this section, the term assault weapons will be used in a manner consistent with Illinois statutes.

Another type of proxy analysis involves the employment of what the firearms industry refers to as "modern sporting rifles" (MSRs)—which is a term used inconsistently to mean different things, but often as a reference to AR-platform and AK-platform semiautomatic rifles—as a proxy for assault weapons. There are two significant limitations with using MSRs, defined this way, as a proxy for assault weapons. First, rifles are not the only assault weapons. Focusing on rifles overlooks pistols and shotguns that are assault weapons. Second, when MSRs are used to refer to firearms that are not AR- and AK-platform rifles, it could result in some MSRs not qualifying as assault weapons under different relevant laws. Indeed, as will be discussed below, if NSSF estimates are accurate, it would mean that all 2,034,000 MSRs estimated by the NSSF to have entered into the domestic stock between 1995 and 2004, when the federal Assault Weapons Ban prohibited the manufacture and importation of assault weapons, would not have been assault weapons under the federal law.[10] Therefore, relying on MSRs as a proxy for assault weapons necessarily results in a misestimation of the number of assault weapons in circulation.

Keeping the above cautionary guidance in mind, it can be stated with a reasonable degree of certainty that the number of assault weapons in circulation in the United States is unknown. The number of personally-owned assault weapons in the possession of private civilians is also unknown. As such, the circulation and ownership rates for assault weapons are indeterminable.

IIIAi. The English Survey. In 2021, Georgetown University professor William English conducted a survey of gun owners ("the English survey" hereinafter).[11] One of the survey's objectives was to collect data on the ownership of what the questionnaire described as "AR-15 style rifles and

[10] For NSSF estimates of the number of MSRs to enter the domestic stock during the decade that the federal Assault Weapons Ban was in effect, *see*, NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, Bates Number NSSF 000041.

[11] The underlying data of the 2021 survey conducted by Professor English have been made available to the general public. The data is archived in spreadsheet format in the following source: William English, "2021 National Firearms Survey," version 1, Harvard Dataverse, 2023, available at https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/58TXW6. Unless stated otherwise, all analyses that I have performed on the English survey data have drawn on the publicly-released data set available at the Harvard Dataverse.

other semi-automatic rifles, which are sometimes referred to as 'assault weapons.'"[12] According to Professor English's analysis of the underlying poll data, he concluded that 30.2% of gun owners have, at some point in their lives, owned an AR-15-style rifle.[13] Using a slightly higher baseline than this report's working average (81.4 million gun owners as opposed to 77.1 million gun owners), Professor English calculated that 30.2% of this group would amount to 24.6 million people.[14] According to his analysis, "This suggests that up to 44 million AR-15 styled rifles have been owned by U.S. gun owners."[15] However, the English survey posed the ownership question in the past tense, making it impossible to probe the current ownership of AR-15-style rifles.

In addition to this limitation related to an odd choice in question wording, there are several ethical and methodological concerns with the English survey that raise suspicions about the underlying data and Professor English's analysis of the data. Ethically, the survey runs afoul of the standards of practice of the American Association for Public Opinion Research (AAPOR).[16] To begin with, Professor English has never disclosed all sources of funding used to conduct and analyze the survey, which is a clear violation of AAPOR canons.[17] Disclosing survey sponsorship is vital to assuring that the survey was not designed or conducted to further the political or economic interests of particular entities. Moreover, while Professor English has released the raw, unweighted results of his survey, he has not released his weighted results, which might constitute a failure to properly disclose all survey results that were used for purposes of analysis.[18] Finally, by misleadingly informing survey participants that this was a survey on outdoor recreational activities, the survey might have used a deceptive practice to lure gun owners into taking the survey, which might also be a violation of AAPOR ethical standards.[19]

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[12] English, *supra* note 7, at 33, Bates Number FFL SHARED 001062.
[13] *Id*.
[14] *Id*.
[15] *Id*.
[16] The AAPOR Code of Professional Ethics and Practices is available at https://aapor.org/standards-and-ethics/#aapor-code-of-professional-ethics-and-practices.
[17] *Id*., Section IIIA2.
[18] *Id*., Section IIB.
[19] *Id*., Section IIIA4.

Besides ethical concerns, the survey also suffers from methodological issues. First, some of the survey questions are worded in a manner that suggests a negative framing of regulations on firearms and magazines. When conducting opinion polls, question wording matters. Subtly cueing respondents to perceive regulations in an unfavorable manner runs the risk of producing biased results, in turn, rendering survey results unreliable.[20] Second, as most surveys conducted by national polling organizations do, the English survey used a methodology known as weighting to estimate the number of overall gun owners. However, throughout the analysis of the poll data, Professor English often reported results using unweighted data. As the English survey, initially, was not demographically representative of gun owners (e.g., it was over-representative of female gun owners and gun owners under 26 years of age and under-representative of male gun owners and gun owners over 65 years of age), relying on unweighted results can produce skewed, unreliable findings.[21]

There are also concerns pertaining to the portions of the survey that probed AR-15-style rifle ownership. As already mentioned, ownership questions were asked in the past tense, making it impossible to gauge current ownership rates. Another problem with the analysis of AR-15-style rifle ownership statistics is that Professor English arbitrarily excluded any responses that indicated they had owned over 100 AR-15-style rifles. This was reportedly done for the following reason: "In order to provide a conservative estimate of ownership rates and to ensure that average estimates are not skewed by a small number of large outliers, we disregard the 0.3% that indicate owning over 100 in calculating average ownership numbers."[22] There is no reason to exclude these

[20] For a quick overview of public opinion polling, including how question wording and question order can affect the answers provided by respondents, see Roper Center for Public Opinion Research, "Polling Fundamentals," Cornell University, 2024, available at https://ropercenter.cornell.edu/polling-and-public-opinion/polling-fundamentals. See, also, Norman M. Bradburn, Seymour Sudman, and Brian Wansink, *Asking Questions: The Definitive Guide to Questionnaire Design—For Market Research, Political Polls, and Social and Health Questionnaires*, Revised Edition (2004).

[21] For an overview of weighting that is written in a manner accessible to lay people, see, Andrew Mercer, Arnold Lau, and Courtney Kennedy, "How Different Weighting Methods Work," Pew Research Center, January , 2018, available at https://www.pewresearch.org/methods/2018/01/26/how-different-weighting-methods-work. It should be noted that surveying a sample of respondents that is not demographically representative of the population is not necessarily a serious defect in the survey, as corrective measures like weighting might be able to address this.

[22] English, *supra* note 7, at 33, Bates Number FFL SHARED 001062.

respondents, nor does Professor English cite any source from the public opinion research literature to support such a seemingly arbitrary decision. As a result of excluding what he labels as "outliers," Professor English buries one of the most striking findings in the survey: a tiny number of gun owners have owned the majority of AR-15-style rifles. After excluding two of the respondents for providing what were apparently false answers claiming to own, respectively, 1 million and 69,420 AR-15-style rifles, a review of the remaining data indicates that Professor English excluded only 12 data points (out of 2,234 AR-15-style-rifle data points).[23] This, too, may seem trivial at first glance.[24] However, those 0.5% of respondents account for ownership of 37.1% of all AR-15-style rifles.[25] When the respondents who owned more than 10 AR-15-style rifles are separated from those who have owned 10 or less, the data indicates that 59.0% of AR-15-style rifles have been owned by just 4.3% of AR-15-style rifle owners. If the English survey results are accurate, this would indicate that AR-15-style rifles are largely concentrated in the hands of a fraction of all AR-15-style rifle owners, let alone all gun owners.

[23] Excluding unrealistic responses is an acceptable practice in survey analysis. See, for example, Miller, Zhang, and Azrael, *supra* note 4.

[24] Based on my evaluation of the English survey data set, 2,193 respondents indicated that they owned a total of 9,049 AR-15-style rifles. I then added the figures provided in 39 narrative responses, which indicated those particular respondents owned at least one such rifle, into the numerical tallies: 35 identified one rifle, 1 identified 2 rifles, 1 identified 3 rifles, 1 identified "30+" rifles (which was coded as 31 rifles), and 1 identified "100+" rifles (which was coded as 101 rifles). I also accounted for 2 additional narrative responses that answered that they owned none. This increased the data set to 2,234 respondents who indicated that they owned a combined total of 9,221 AR-15-style rifles.

[25] Professor English claims that he only excluded 0.3% of responses. In his words, "Approximately 99.7 indicated owning under 100 and 98.4% under 10…. Among those who indicate having owned AR-15 and similarly styled rifles, they indicate having owned an average of 1.8, with the median owner having owned 1. This suggests that up to 44 million AR-15 styled rifles have been owned by U.S. gun owners." English, *supra* note 7, at 33, Bates Number FFL SHARED 001062. The problem with the above assertions is that the English survey data do not allow for a reproduction of these figures. For instance, whether or not one includes the 41 narrative responses (totaling 172 rifles), after excluding the two extreme (and apparently false) responses, the data appear to show that the number of gun owners who indicated that they have owned over 100 AR-15-style rifles equals 0.5%, not 0.3%. Because Professor English does not explain his calculations in his analysis, it is unclear how he calculated this so-called "outlier" group to be 0.3%. These discrepancies further challenge the accuracy and reliability of the analysis performed by Professor English. In particular, reproducibility—taking the identical data provided by someone else, subjecting those data to the same computational steps or code, and coming up with identical results—is a hallmark of science. See, for example, National Academies of Science, Engineering, and Medicine, *Reproducibility and Replicability in Science* (2019). When studies cannot be reproduced, there is good reason to be suspicious of their purported findings and conclusions.

Given suspicions about the integrity and findings of the English survey, there is a good basis to consider the underlying survey data as well as the subsequent unpublished analysis performed by Professor English unreliable.

IIIAii. NSSF Publications. In 2024, the NSSF published a table that estimates the number of "modern sporting rifles" (MSRs) that came into circulation as part of the domestic stock in the United States on an annual basis (these estimates are reproduced in Table 1, second column). According to the NSSF, between 1990 and 2021, an estimated 28.1 million MSRs entered the domestic market.[26] Again, this is not the number believed to be personally owned by private civilians, which would be a subset of the overall domestic stock. The 28.1 million estimate necessarily includes MSRs in the possession of law enforcement and security agencies, firearm wholesalers and retailers, firearm instruction centers, shooting ranges and gun clubs, prohibited owners (such as criminals and domestic abusers), as well as MSRs that have been illegally trafficked to other countries and those that have been lost, decommissioned (including due to deterioration), or destroyed. As discussed earlier, it appears to also include MSRs that would not qualify as assault weapons in jurisdictions that currently restrict assault weapons.

The NSSF's estimate cannot be verified because the underlying data and formula used to calculate the figure have not been made available by the NSSF. According to the NSSF, the source data for the number of MSRs entering the U.S. market annually since 1990 come from "ATF AFMER, US ITC, [and] Industry Reporting." The problem with this claim is that neither the ATF nor the ITC track MSRs. The Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) does

[26] NSSF, *supra* note 10, at 7, Bates Number NSSF 000041. The NSSF does not estimate how many MSRs entered the domestic firearms market prior to 1990. However, one analysis of rifle serial numbers estimates that, from 1963 when the manufacture of AR-rifles commenced until 1994 when the federal Assault Weapons Ban took effect, there were at least 787,144 AR-platform firearms produced in the U.S. *See* General Staff, "Estimating AR-15 Production, 1964-2017," November 9, 2019, available at https://www.generalstaff.org/Firearms/Count/AR15_Production.htm. Per NSSF's estimate, 287,000 MSRs were produced in the U.S. from 1990-1994. Subtracting the NSSF's 287,000 estimate from the larger 787,000 estimate suggests that a total of approximately 500,000 MSRs were produced domestically prior to 1990. This calculation assumes that NSSF's 287,000 estimate is accurate. However, given that the NSSF does not provide a detailed accounting of how it calculated its MSR estimates, the accuracy of the NSSF's estimates is open to question.

produce a report known as the Annual Firearms Manufacturers and Export Report (AFMER). As the title of this report indicates, this is an annual report of how many guns are manufactured in the U.S. and how many guns are exported to other countries. ATF AFMER data are broken down by category, particularly handguns, rifles, and shotguns. The International Trade Commission maintains separate data on firearms imported in the U.S. Neither the ATF nor the ITC maintain data specific to MSRs. As such, there is no way to discern the number of MSRs in circulation from either of these U.S. government sources. Using the process of elimination, any determinations as to the number of MSRs in circulation made by the NSSF would necessarily be the result of consulting industry sources that have not been shared by the NSSF. As a result, the NSSF's estimate is unverifiable.[27]

While the accuracy of the NSSF's chart on MSR production cannot be confirmed, if we assume it is accurate, a clear pattern emerges. The number of MSRs in circulation prior to the expiration of the Federal Assault Weapons Ban in 2004 accounted for no more than 10% of the estimated 28.1 million cumulative stock (Table 1, last column). Indeed, over half of the estimated cumulative stock did not come into circulation until 2016—a mere six years prior to the estimated culmination of 28.1 million MSRs (Table 1, last column). Furthermore, the NSSF estimates that 13% of all MSRs since 1990 entered the domestic market in one single year: 2021 (Table 1, last column). In other words, if the NSSF estimates are correct, then over half of the stock of MSRs entered the domestic market in just a six-year period. In which case, the prior 26 years accounted for less than 50% of the overall number of MSRs that entered the domestic market (Figure 3).

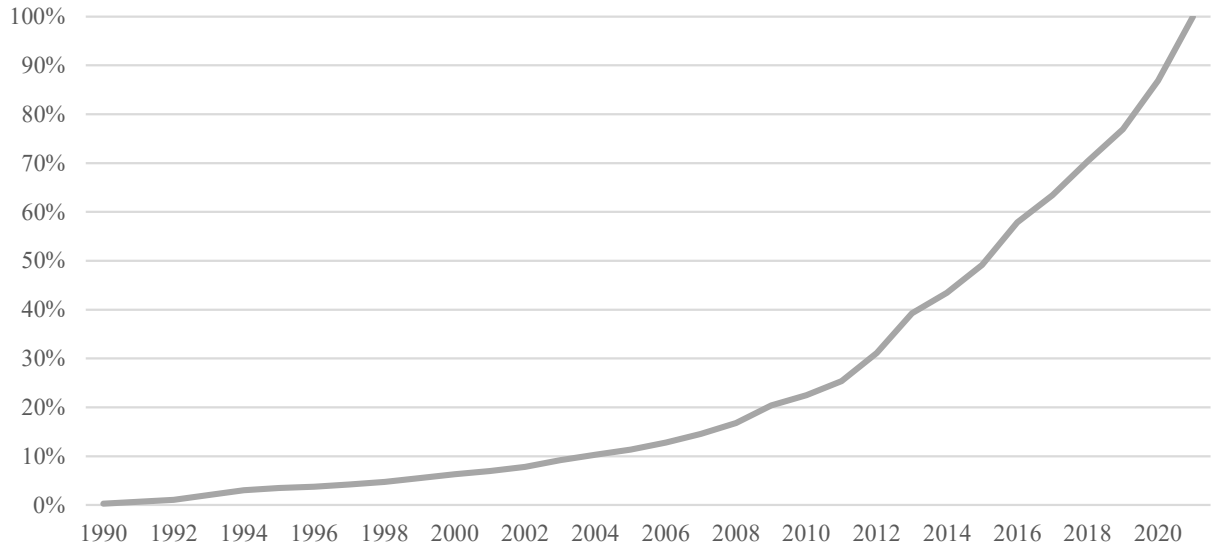
[27] In addition to reproducibility, another hallmark of science is replicability—finding fairly consistent outcomes across different studies using their own unique data. National Academies of Science, Engineering, and Medicine, *supra* note 25. The NSSF's claims regarding the number of MSRs cannot be either reproduced or replicated. This calls into question the NSSF's estimates, in turn, rendering the NSSF chart on "Modern Sporting Rifle Production in the United States, 1990-2021," unreliable. The chart is published in NSSF, *supra* note 10, at 7, Bates Number NSSF 000041.

Table 1
NSSF Estimate of MSRs Entering the Domestic Stock of Firearms Compared to All Firearms Entering the Domestic Stock of Firearms, Annually and Cumulatively, 1990-2021

Year	MSRs (Annual NSSF Estimate)	All Firearms (Annual)	% MSRs (Annual)	Cumulative MSRs (Annual NSSF Estimate)	Cumulative Firearms (Annual)	% Cumulative MSRs (Annual)	Cumulative MSRs (Annual) as Share of Cumulative MSRs (Total)
1990	74,000	4,468,112	2%	74,000	4,468,112	2%	<1%
1991	115,000	4,145,349	3%	189,000	8,613,461	2%	1%
1992	105,000	5,248,760	2%	294,000	13,862,221	2%	1%
1993	288,000	6,557,710	4%	582,000	20,419,931	3%	2%
1994	274,000	6,932,329	4%	856,000	27,352,260	3%	3%
1995	131,000	5,138,387	3%	987,000	32,490,647	3%	4%
1996	70,000	4,469,764	2%	1,057,000	36,960,411	3%	4%
1997	125,000	4,940,193	3%	1,182,000	41,900,604	3%	4%
1998	145,000	4,303,847	3%	1,327,000	46,204,451	3%	5%
1999	232,000	5,067,234	5%	1,559,000	51,271,685	3%	6%
2000	216,000	4,886,807	4%	1,775,000	56,158,492	3%	6%
2001	179,000	4,079,671	4%	1,954,000	60,238,163	3%	7%
2002	242,000	4,955,064	5%	2,196,000	65,193,227	3%	8%
2003	380,000	4,785,311	8%	2,576,000	69,978,538	4%	9%
2004	314,000	4,516,660	7%	2,890,000	74,495,198	4%	10%
2005	311,000	4,753,393	7%	3,201,000	79,248,591	4%	11%
2006	398,000	5,531,699	7%	3,599,000	84,780,290	4%	13%
2007	498,000	6,081,149	8%	4,097,000	90,861,439	5%	15%
2008	633,000	6,151,414	10%	4,730,000	97,012,853	5%	17%
2009	1,006,000	8,376,936	12%	5,736,000	105,389,789	5%	20%
2010	584,000	7,386,527	8%	6,320,000	112,776,316	6%	22%
2011	816,000	8,415,769	10%	7,136,000	121,192,085	6%	25%
2012	1,630,000	11,655,709	14%	8,766,000	132,847,794	7%	31%
2013	2,275,000	14,767,938	15%	11,041,000	147,615,732	7%	39%
2014	1,187,000	11,342,899	10%	12,228,000	158,958,631	8%	43%
2015	1,605,000	12,060,780	13%	13,833,000	171,019,411	8%	49%
2016	2,447,000	15,048,092	16%	16,280,000	186,067,503	9%	58%
2017	1,564,000	11,542,343	14%	17,844,000	197,609,846	9%	63%
2018	1,956,000	11,377,191	17%	19,800,000	208,987,037	9%	70%
2019	1,848,000	9,478,521	19%	21,648,000	218,465,558	10%	77%
2020	2,798,000	15,250,004	18%	24,446,000	233,715,562	10%	87%
2021	3,698,000	21,037,810	18%	28,144,000	254,753,372	11%	100%

Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

Figure 3
NSSF Estimate of Cumulative Number of MSRs in Any Given Year as a Share of All Cumulative MSRs, 1990-2021

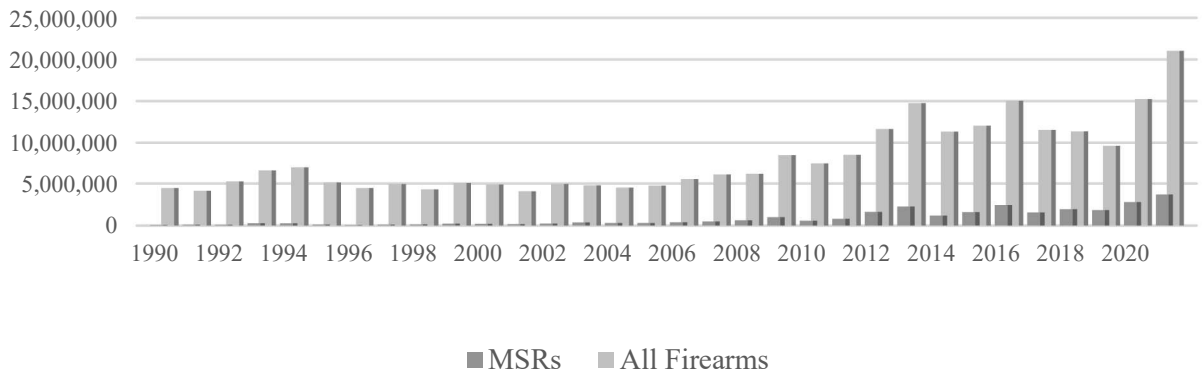


Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, Bates Number NSSF 000041.

A similar pattern appears when examining the total number of MSRs compared to the total number of all firearms that annually enter the domestic stock (Figure 4) as well as the entry of MSRs as a percentage of all firearms entering the domestic stock in a given year (Figure 5). The same holds when examining the cumulative number of MSRs in the domestic stock compared to the cumulative number of all firearms that entered the domestic stock on an annual basis (Figure 6) as well as the cumulative entry of MSRs as a percentage of all firearms that had cumulatively entered the domestic stock on an annual basis (Figure 7). If NSSF estimates are accurate, then MSRs only account for 11% of the domestic stock of firearms in the United States, as of the end of 2021 (Figure 8).[28] All of the data pertaining to MSRs published by the NSSF point to the same conclusion: production and importation of MSRs is a very recent phenomenon.

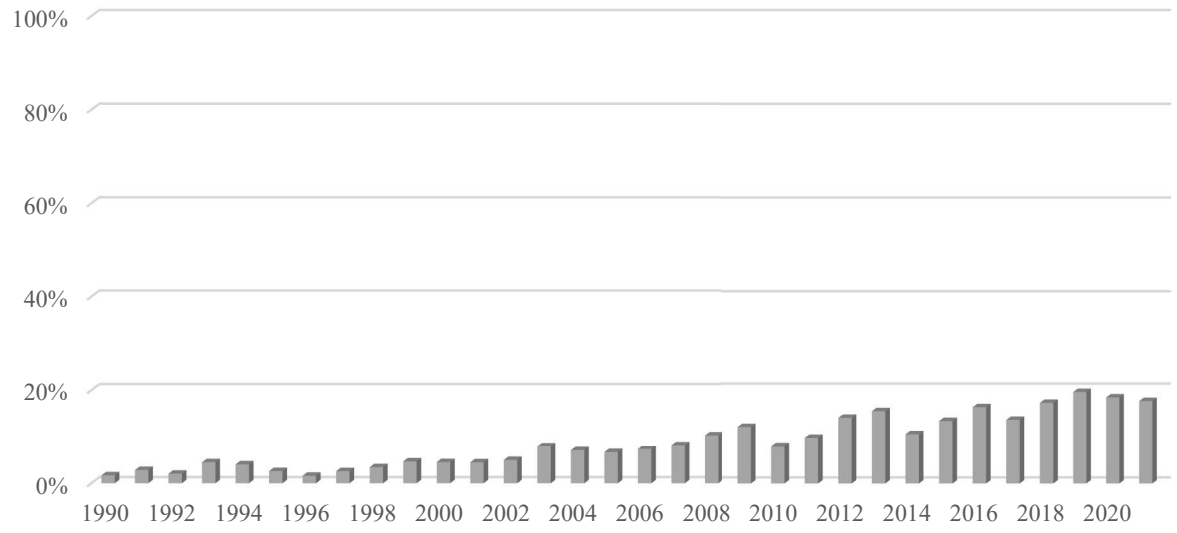
[28] The 11% figure is clearly an over-estimate because the NSSF measures the domestic stock beginning in 1990. But with estimates of over 200 million firearms that entered the domestic stock between 1899 and 1990, coupled with the fact that MSRs would only have accounted for a tiny fraction of the pre-1990 domestic stock of firearms (see General Staff, *supra* note 26), the true share of MSRs relative to the entire domestic stock, going back in time by 125 years, is necessarily less than 11%. For more on the estimated domestic stock between 1899 and 1990, see Marianne

Figure 4
NSSF Estimate of Annual Number of MSRs Entering the Domestic Stock Compared to Annual Number of All Firearms Entering the Domestic Stock, 1990-2021



Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

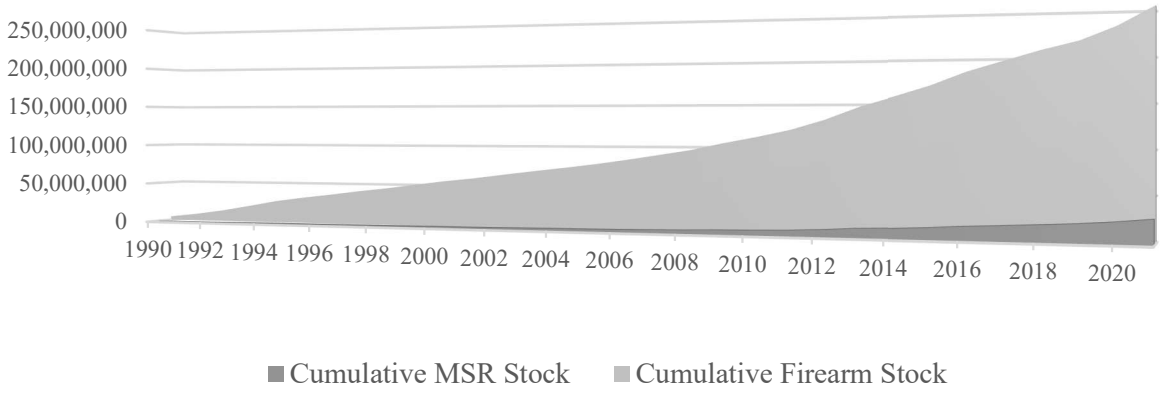
Figure 5
Annual Percentage of NSSF Estimate of MSRs Entering the Domestic Stock as a Share of All Firearms Entering the Domestic Year, 1990-2021



Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

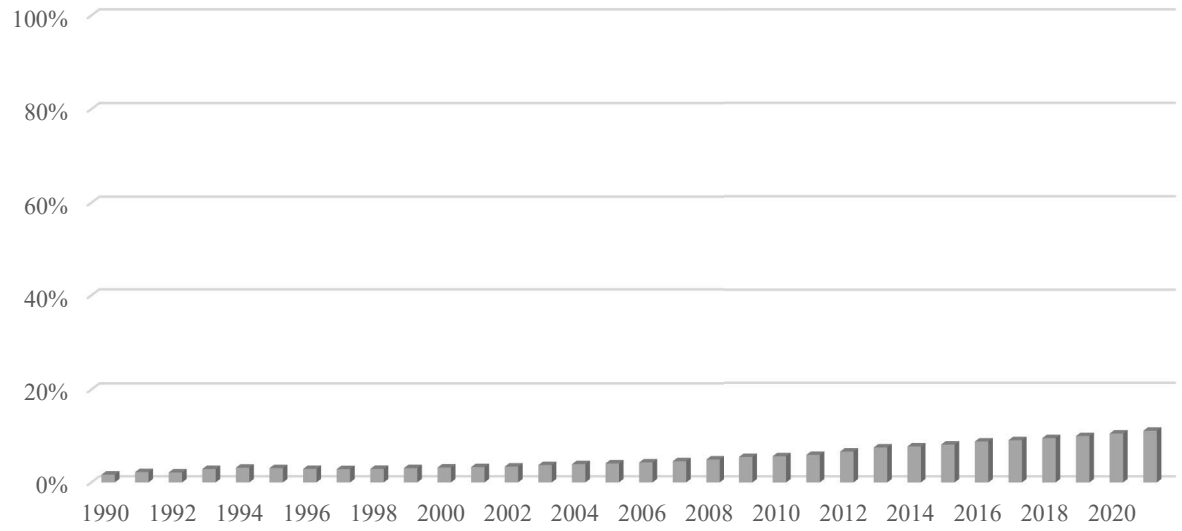
W. Zawitz, *Guns Used in Crime*, Bureau of Justice Statistics Selected Findings, July 1995, at 2, available at https://bjs.ojp.gov/content/pub/pdf/GUIC.PDF.

Figure 6
NSSF Estimate of Cumulative Number of MSRs in the Domestic Stock Compared to Cumulative Number of All Firearms in the Domestic Stock, 1990-2021



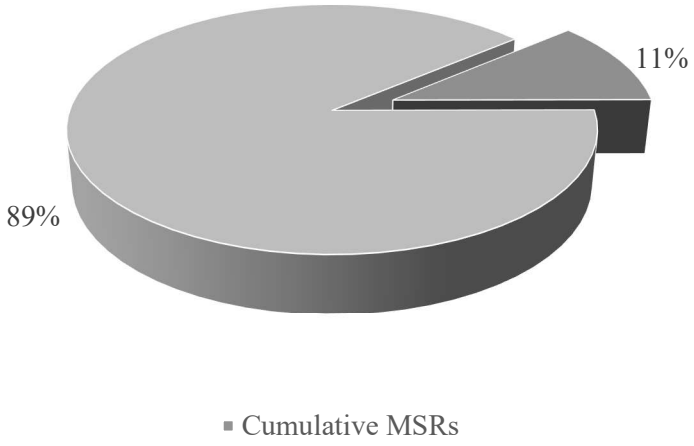
Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

Figure 7
Annual Percentage of NSSF Estimate of Cumulative MSRs in the Domestic Stock as a Share of All Firearms in the Domestic Year, 1990-2021



Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

Figure 8
NSSF Estimate of Cumulative Number of MSRs as a Share of Cumulative Number of All Firearms in Domestic Stock, 1990-2021



Source: NSSF, *Firearm Production in the United States with Firearm Import and Export Data, 2023 Edition* (2024), at 7, 16, Bates Numbers NSSF 000041, NSSF 000050.

The NSSF has also conducted three surveys of MSR owners, with the most recent one conducted between December 2021 and January 2022.[29] By the survey organization's own disclaimer, this survey also appears to be unreliable: "Sports Marketing Surveys cannot guarantee the accuracy of the information contained and does not accept any liability for any loss or damage caused as a result of using information or recommendations contained within this document."[30] Keeping this in mind, one of the most interesting findings is that the average number of MSRs owned has increased from 2.6 per person in 2010, to 3.1 per person in 2013, to 3.8 per person in 2022. Only 24% of respondents in 2022 indicated that they owned only 1 MSR.[31] Akin to the pattern detected in the English survey data, this pattern suggests that ownership of MSRs is likely concentrated. It should be noted, however, that this survey does not appear to meet scientific

[29] NSSF, *Modern Sporting Rifle Comprehensive Consumer Report: Ownership, Usage, and Attitudes Toward AR- and AK-Platform Modern Sporting Rifles* (2022), at 10, Bates Number NSSF 000109.
[30] *Id*., at 2, Bates Number NSSF 000101.
[31] *Id*., at 12, Bates Number NSSF 000111.

standards. For example, 96% of respondents were males, which means either that other surveys of MSR owners are erroneous or the NSSF survey is way off the mark in terms of survey sample.[32]

However, given the lack of transparency regarding its estimates and the inability to reproduce and replicate its statistical claims, NSSF trade data cannot be deemed reliable.

IIIAiii. The Washington Post / Ipsos Survey. In the Fall of 2022, the *Washington Post,* in partnership with Ipsos, conducted a survey of adult gun owners. It found that 20% of respondents indicated that they own "AR-15-style rifles, including any semi-automatic weapon built on a common AR-15 platform." Applying this percentage to a finding from a previous *Washington Post* / Ipsos poll that suggested that there might be 80.8 million gun owners in the United States, the *Washington Post* and Ipsos concluded that "about 16 million Americans own an AR-15."[33]

Among other results from this poll, the *Washington Post* and Ipsos found that 95% of AR-15-platform firearm owners also own handguns, 79% own other long guns (hunting rifles and shotguns), and 33% own antique firearms. In comparison, the breakdown of ownership rates for non-AR-15-platform firearms for all survey respondents was as follows: 80% owned handguns, 62% owned other long guns (hunting rifles and shotguns), and 16% owned antique firearms. The survey results suggest that owners of AR-15-platform firearms are more likely, as a group, to own more firearms of other categories than gun owners who do not own AR-15-platform firearms.[34]

While in general the *Washington Post* and Ipsos are considered to be organizations that conduct credible public opinion polls, there are two limitations with this particular survey that warrant providing additional context to the results. One caveat is that, as responses are often sensitive to question wording, the fact that the survey queried ownership of "any semi-automatic weapon built on a common AR-15 platform," it likely captured respondents who own AR-15-

[32] *Id*., at 75, Bates Number NSSF 000174.

[33] Emily Guskin, Aadit Tambe, and Jon Gerberg, "What Do Americans Own an AR-15?" *Washington Post*, March 27, 2024, Bates Numbers FFL SHARED 000315-000325, available in full at https://www.washingtonpost.com/nation/interactive/2023/american-ar-15-gun-owners.

[34] *Id*.

platform handguns as well as those who own AR-15-platform rifles.[35] The other caveat is that the poll only surveyed a small sample of AR-15-platform firearm owners (399 respondents in total). This resulted in a margin of sampling error of plus-or-minus 5.5%. As to the broader panel of 2,104 gun owners, the margin of sampling error was plus-or-minus 2.5%. Given a 20% ownership result, this creates a range that runs from 17.5% to 22.5%.[36] To put ownership statistics in absolute numbers, if the *Washington Post* / Ipsos survey is accurate, the number of Americans who own AR-15-platform firearms can be as low as 14.1 million adults and as high as 18.2 million adults.[37]

IIIAiv. Inconsistencies Across the Different Sources on AR-15-Style Firearm Circulation and Ownership. When comparing the English survey, the NSSF publications, and the *Washington Post*/Ipsos survey, one takeaway stands out: the results from each source appear to contradict the other sources. This means one of two things: (1) one of these three sources is likely correct and the other two are likely incorrect or (2) all three sources are likely incorrect. Table 2 provides a breakdown of the key estimates from each source.

Table 2
Comparison of English, NSSF, and *Washington Post*/Ipsos Estimates

Source	Estimated Percentage of MSR/AR-15-Style Rifle Owners	Estimated Number of MSRs/AR-15-Style Rifles	Mean Average Number of MSRs/AR-15-Style Rifles Personally Owned	Estimated Number of Americans That Personally Own MSRs/AR-15-Style Rifles
English Survey	30.2	44 million	1.8	24.6 million
NSSF	6.1	28.1 million	3.8	7.4 million
WP/Ipsos Survey	20	16+ million	1.0+	16 million

[35] I am unaware of how many AR-15-platform firearms are handguns as opposed to rifles.
[36] Guskin, Tambe, and Gerberg, *supra* note 33, Bates Numbers FFL SHARED 000315-000325.
[37] Using this report's working mean average of 77.1 million gun owners produces a range of 13.5 to 17.3 million AR-15-platform firearm owners.

To put these competing estimates in perspective, the percentage of AR-15-style rifle owners reflected in the English survey marks a 50% increase from the percentage of AR-15-style rifle owners reflected in the *Washington Post* / Ipsos survey, and a 395% increase in comparison to NSSF MSR figures. Moreover, the NSSF suggests that the number of MSRs that are personally owned could be as low as 7.4 million. In contrast, Professor English found that the number of AR-15 style rifles that have been owned could be as high as 44 million—roughly a six-fold increase.[38]

Similarly, comparing the English and NSSF estimates produces substantial differences. For instance, Professor English's 44 million figure is 57% higher than the 28.1 million MSRs that the NSSF estimates entered into the domestic firearms market between 1990 and 2021—and the NSSF estimate reflects the entire domestic stock, not the necessarily smaller subset of MSRs personally owned by private civilians. Professor English also claims to have found that owners of AR-15-style rifles have owned a mean average of 1.8 such rifles. In its survey of MSR owners, the NSSF claims to have found that the mean average number of MSRs owned was 3.8 such rifles per person. This is a drastically different number than the 1.8 average reported by Professor English. Using the data collected in the English and NSSF surveys generates a range of total MSR/AR-15-style rifle owners that runs from 7.4 million people to 24.6 million people—which reflects more than a three-fold difference.

The bottom line is that the various sources pertaining to circulation and ownership of AR-15-style rifles offer competing estimates that are significantly different. Furthermore, and perhaps most important of all, none of these statistics—which only address rifles that may or may not qualify as assault weapons—indicate how many assault weapons are actually in circulation and personally owned by adults in the United States.

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[38] The NSSF does not actually offer an estimate of MSR owners. However, for heuristic purposes, the maximum number of possible MSR owners, according to NSSF figures, is 7.4 million people. This is calculated by taking the total number of MSRs claimed to be in circulation (28.1 million) and, assuming those MSRs as all personally owned by private civilians (which of course they are not), dividing the 28.1 million figure by the mean average number of MSRs owned (3.8), to generate a maximum number of MSR owners (7.4 million). The NSSF estimated percentage of gun owners who own an MSR is calculated by taking the number of estimated MSR owners (7.4 million) and dividing it by the number of gun owners the NSSF estimates that there are currently in the U.S. (121.2 million). This comes out as 0.061, or 6.1%. The estimate of 121.2 million gun owners is based on the NSSF claim that 36.3% of the U.S. population (currently 334 million people), owns firearms. See *infra* notes 68-73 and accompanying text.

IIIB. Large-Capacity Magazines

Large-capacity magazines (LCMs) are generally defined as ammunition-feeding devices with a capacity greater than 10 rounds.[39] Almost all analyses of ammunition magazines by capacity, including those reviewed below, distinguish magazines using a cutoff threshold of 10 rounds. The number of LCMs in circulation in the United States is unknown. The number of personally-owned LCMs in the possession of private civilians is also unknown. As such, the circulation and ownership rates for LCMs are indeterminable.

IIIBi. The English Survey. The English survey also attempted to collect data on ownership of ammunition magazines. According to an analysis of the underlying poll data, Professor English claims to have found that 48% of gun owners have, at some point in their lives, owned an LCM. As with questions pertaining to the ownership of AR-15-style rifles, the English survey posed the magazine ownership question in the past tense, making it impossible to probe the current ownership of magazines. In his initial analysis of the survey data, Professor English estimated that American gun owners have owned upwards of 269 million handgun LCMs and 273 million rifle LCMs, for a total of 542 million LCMs overall.[40] In a subsequent analysis of the same data, Professor English altered his estimates to 268 million handgun LCMs and 283 rifle LCMs, for a combined total of 551 million LCMs overall.[41]

In addition to the general ethical and methodological problems discussed above, there are also concerns pertaining to the portions of the survey that probed LCM ownership. For instance, as already mentioned, ownership questions were asked in the past tense, making it impossible to gauge current ownership rates. Furthermore, while the English survey provided an opportunity for those who had owned LCMs to indicate how many magazines they owned with (a) a capacity of

[39] Under Illinois statute (720 ILCS 5/24-1.10), LCM capacity thresholds are set at greater than 10 rounds for long guns and greater than 15 rounds for handguns.

[40] English, 2022, *supra* note 7, at 24-25 Bates Numbers FFL SHARED 001053-001054.

[41] William English, "2021 National Firearms Survey: Analysis of Magazine Ownership and Use," Unpublished Paper (May 4, 2023), at 20, available at https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=4283305.

ten rounds or less and (b) a capacity greater than 10 rounds, those who answered that they never owned an LCM were not provided an opportunity to indicate how many magazines with a capacity of 10 rounds or less they owned. Thus, when Professor English subsequently analyzed the number of magazines with a capacity of 10 rounds or less, he was unable to provide a full picture of how many such magazines might exist. This, in turn, prevents an assessment of what share of all magazines are LCMs.

Another problem with the analysis of LCM ownership is that Professor English arbitrarily excluded any responses that indicated they had owned over 100 magazines of a particular capacity category. As with Professor English's analysis of AR-15-style rifle ownership statistics, this was reportedly done for the following reason: "In order to provide a conservative estimate of ownership rates and to ensure that average estimates are not skewed by a small number of large outliers, we exclude the 0.2% of responses that indicated owning over 100 magazines in a category."[42] As a reminder, there is no reason to exclude these respondents, nor does Professor English provide any support from the public opinion research literature to support such a seemingly arbitrary decision. The implication of this decision is that Professor English, again, buries one of the most striking findings in the survey: a tiny number of gun owners have owned the vast majority of LCMs. After excluding one of the respondents for providing what were indisputably false answers, claiming to own over 1 trillion magazines, a review of the remaining data indicates that Professor English excluded only 91 data points (out of 57,000 LCM-related data points).[43] This, too, may seem trivial at first glance. However, those 0.2% of responses account for 72.7% of all LCMs.[44] When the different categories of LCMs owned by respondents are all totaled and the respondents who owned more than 100 LCMs are separated from those who owned 100 or fewer LCMs, the data indicate that 82.5% of LCMs have been owned by just 3.2% of LCM owners. If the English survey results

[42] English, 2022, *supra* note 7, at 23-24, Bates Numbers FFL SHARED 001052-001054.

[43] Excluding unrealistic responses is an acceptable practice in survey analysis. See, for example, Miller, Zhang, and Azrael, 2022, *supra* note 4.

[44] Based on my evaluation of the English survey data set, 7,125 respondents indicated that they owned a total of 382,042.2 LCMs. I then treated the one response that indicated owning 0.2 LCMs as a typo. Recoding that entry as 2 LCMs, the total number of LCMs listed totaled 382,044. The 91 responses that Professor English excluded accounted for 277,926 LCMs, which is 72.7% of the overall 382,044 LCMs tallied.

are accurate, this would indicate that LCMs are largely concentrated in the hands of a fraction of all LCM owners, let alone all gun owners.

Professor English also interpreted some of his findings related to LCMs in a manner that appears to be a speculative attempt to make sense of those findings, which calls into the question the reliability of his survey and subsequent analyses. In one example, respondents were asked if they ever found themselves in a situation "in which it would have been useful for defensive purposes to have a firearm with a magazine capacity in excess of 10 rounds."[45] Approximately 550 respondents answered this question in the affirmative.[46] Over 10% of Professor English's unpublished paper is allocated to reproducing, verbatim, 31 select answers to this question. Presumably, the 31 reproduced answers are the ones that Professor English felt were the most instructive as to the utility of LCMs in self-defense situations.[47] Out of these 31 scenarios, ***only two*** involved an armed citizen actually firing their firearm, and in ***only one*** of these two scenarios did the respondent confirm that they fired more than 10 rounds. Neither scenario involved self-defense against a criminal. Instead, both involved the use of gunfire to ward off animals: in one instance a bear and in another a pack of coyotes.[48] Taking situations that involved driving away from the potential threat or having their dog chase away the criminals and interpreting them as examples that reflect *the usefulness of LCMs* for purposes of self-defense, is unfounded.[49] Relatedly, while Professor English reported that there were approximately 550 respondents who provided answers in the affirmative, he failed to report that 4,257 survey participants provided a response to this question, and the majority of the answers were in the negative.

In another example, Professor English reports the percentage of gun owners who have owned LCMs in each state. The state with the highest rate of LCM ownership is the District of Columbia, with 69.2% of D.C. respondents reporting that they have owned LCMs.[50] This is a

[45] English, 2022, *supra* note 7, at 26-28, Bates Numbers FFL SHARED 001055-001057.
[46] *Id*., at 28, Bates Number FFL SHARED 001057.
[47] *Id*., at 28-33, Bates Numbers FFL SHARED 001057-001062.
[48] *Id*.
[49] *Id*.
[50] *Id*., at 27, Bates Number FFL SHARED 001056.

surprising finding because the District of Columbia has strictly prohibited LCMs since 2009.[51] Intuitively, the District of Columbia should be one of the states with the lowest LCM ownership rates. To make sense of this finding, Professor English provided some possible explanations: (1) LCM owners were including magazines that they keep in another state or that are legal to possess because they are "grandfathered" and (2) states with low gun ownership rates "such as DC and Hawaii" are more likely to have a higher concentration of "gun enthusiasts."[52] However, Professor English offered no basis for reasoning that LCM owners in the District of Columbia store their LCMs in other states (not to mention that neighboring Maryland also restricts LCM possession). Nor did Professor English offer any evidence that there is a higher concentration of gun enthusiasts in Washington, D.C.[53] And, the "grandfathering" theory can be ruled out because the District of Columbia does not grandfather LCMs.

IIIBii. NSSF Publications. In 2024, the NSSF released a report that estimated that between 1990 and 2021, an estimated 963,772,000 handgun and rifle magazines entered into circulation in American society (**Exhibit B**, at 3, Bates Number NSSF 001996). The NSSF has created at least three earlier iterations of this magazine chart ("NSSF magazine chart" hereinafter). The first version was put together in 2013 (**Exhibit C**, at 6). The next version was made in either 2016 or 2017 (**Exhibit D**, at 6). A subsequent version appeared in a 2020 NSSF industry analysis (**Exhibit E**, at 7, Bates Number NSSF 000023).

In the first three versions of the NSSF magazine chart, the only information that the NSSF provided as to how the estimates were calculated appeared at the bottom of each chart. For the chart covering the time periods 1990-2012 and 1990-2015, the NSSF identified the sources as "ATF AFMER, US International Trade Commission figures combined with NSSF and firearms industry estimates." For the chart covering the time period 1990-2018, the NSSF similarly

[51] *See* Giffords Law Center to Prevent Gun Violence, "Large-Capacity Magazines," available at https://giffords.org/lawcenter/gun-laws/policy-areas/hardware-ammunition/large-capacity-magazines.

[52] English, 2022, *supra* note 7, at 25-26, Bates Numbers FFL SHARED 001054-001055.

[53] *Id*. Professor English also fails to explain how the rate of gun ownership might be related to the percentage of gun enthusiasts.

identified the sources as "ATF AFMER, US ITC, Industry estimates." Neither the ATF nor the ITC maintain data specific to ammunition magazines. As such, there is no way to discern the number of magazines in circulation from either of these U.S. government sources. Using the process of elimination, any determinations as to the number of magazines in circulation made by the NSSF would necessarily be the result of consulting "industry estimates."

The NSSF magazine charts do not provide any information as to which specific industry sources were consulted. Nor do they provide any underlying data or detailed calculations as to how magazine estimates were determined. However, in a declaration as well as a deposition in *Wiese v. Bonta* (E.D. Cal.), both of which are docketed (making them public records), the creator of the initial NSSF magazine charts, James Curcuruto, detailed the methodology used to estimate the number of magazines in circulation. Of particular interest to the present case, Curcuruto, who used to be the director of research and market development at the NSSF, devoted a portion of his declaration in *Wiese* discussing how the initial charts were created. After noting the caveat that he was "not aware of any singular public source providing reliable figures identifying exactly how many ammunition magazines are manufactured or imported for sale within the United States each year,"[54] Curcuruto then outlined the steps taken to create the NSSF's magazine chart covering the years 1990-2015:

> Sources used to compile the NSSF® Magazine Chart include the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturers and Export Report (AFMER), . U.S. International Trade Commission, as well as opinions of firearms industry professionals….
>
> The ATF AFMER and ITC data provided estimates of approximately 67.7 million pistols and 42.6 million rifles capable of holding a magazine were available to United States consumers between 1990 and 2015. Firearms industry professionals with knowledge of the pistol and rifle magazine market then allocated magazines to the totals to complete the data in the NSSF® Magazine Chart.[55]

[54] Declaration of James Curcuruto, *Wiese v. Bonta*, 2:17-cv-00903-WBS-KJN (E.D. Cal.), June 14, 2017, ECF 28-3, para. 6.

[55] *Id*., paras. 9, 11.

Based on this approach, in its magazine chart covering 1990-2015, the NSSF estimated that 230 million magazines were in circulation, with half (115 million) being LCMs.[56] Curcuruto, nevertheless, cautioned that "the figure of 115 million magazines with a capacity greater than 10 rounds in circulation is an estimation based on an extrapolation from indirect sources and cannot be confirmed as unequivocally accurate."[57]

The statements in Curcuruto's declaration call into doubt the accuracy of NSSF ammunition magazine estimates. In addition, Curcuruto's declaration confirms that neither the ATF nor the ITC provided the NSSF with specific data on the number of ammunition magazines in circulation. Instead, the declaration identifies the source of such data as "firearm industry professionals."[58] In his deposition in *Wiese*, Curcuruto identified the "firearm industry professionals" that were consulted as himself and his boss, the former president of the NSSF Steve Sanetti.[59] Basically, Curcuruto and Sanetti took the number of semiautomatic handguns and rifles that they believed were in the domestic stock and used an allocation formula to estimate the number of ammunition magazines in circulation.[60] Curcuruto could not recall the precise formula that he and Sanetti used.[61] In particular, Curcuruto could not explain why that particular formula was used—or how it was justified—beyond a blanket suggestion that Sanetti had a good sense about the number of magazines in circulation and, as a result, Curcuruto trusted Sanetti's judgement on this matter.[62] When pressed during his deposition, Curcuruto admitted that an outside analyst would not be able to reproduce the NSSF estimates.[63] As discussed above, reproduction and

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[56] *Id*., para. 8.

[57] *Id*., para. 13.

[58] *Id*., para. 11.

[59] Deposition of James Curcuruto, *Wiese v. Bonta*, 2:17-cv-00903-WBS-KJN (E.D. Cal.), August 3, 2023, at 19:5-19:21, 121:8-153:22, available via Declaration of Andrew Hughes, Ex. 1, *Sullivan v. Ferguson*, 3:22-cv-05403-DGE (W.D. Was.), ECF 119-1 ("Curcuruto *Wiese* Deposition" hereinafter).

[60] *Id*.

[61] *Id*.

[62] *Id*.

[63] *Id*., at 158:13-18:16. In his deposition in *Kolbe v. O'Malley* (D. Md.), Curcuruto discussed the allocation formula that was used to create the first NSSF magazine chart, which covered the time-period of 1990-2012. Deposition of James Curcuruto, *Kolbe v. O'Malley*, 13-cv-02841-CCB (D. Mary.), January 24, 2014, available via Response to Motion to Supplement Joint Appendix, Exhibit 1, ECF 119, *Kolbe v. Hogan*, No. 14-1945 (4th Cir.), April 13, 2016, at 33:19-48:15. Curcuruto provided a one-page worksheet outlining how the calculations were made. This sheet was marked as "Exhibit 12" of Curcuruto's *Kolbe* deposition (attached here as **Exhibit F**). With the exception

replication are hallmarks of scientific analysis.[64] The NSSF estimations pertaining to ammunition magazines in circulation fail to meet these well-established scientific standards. As such, the data contained in the NSSF magazine charts are not reliable.[65]

There is another serious concern with NSSF ammunition magazine estimates. Reviewing the four NSSF magazine charts that, respectively, cover the time periods of 1990-2012, 1990-2015, 1990-2018, and 1990-2021, demonstrates a trend that is farfetched (see **Exhibit G** for a table comparing the estimates contained in the four NSSF magazine charts). According to the NSSF, in the three-year period between 2012 and 2015, the number of ammunition magazines increased 46% from approximately 158 million to approximately 230 million, with the proportion of those magazines with a capacity greater than 10 rounds increasing from 47% to 50%. In the three-year period between 2015 and 2018, the number of ammunition magazines increased 32% from approximately 230 million to approximately 304 million, with the proportion of those magazines with a capacity greater than 10 rounds increasing from 50% to 53%. The jump between 2012 and 2018 from 158 million to 304 million marks a 92% increase. A near doubling of the domestic stock of ammunition magazines in just six years appears, on its face, incredulous. Nevertheless, this pales in comparison to the increase in the three-year period between 2018 and 2021. In this most recent timeframe, the number of ammunition magazines more than tripled, increasing 217% from approximately 304 million to approximately 964 million, with the proportion of those magazines

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of MSR magazines, Curcuruto and Sanetti took rough estimates of how many semiautomatic handguns and rifles were in circulation and simply doubled that number to get the number of estimated magazines. For MSRs, they instead quadrupled the estimated number rifles to get a number of estimated magazines, which they then rounded down to the nearest ten million mark. However, the worksheet does not explain how the baseline number of firearms subject to allocation was determined, let alone why such a calculation was made that particular way. Similarly, the worksheet provides no justification for the formula used to allocate LCMs as a share of all magazines (e.g., 3/2 split was used to allocate pistol magazines by LCM status without an explanation or justification for why such an allocation was employed). In essence, what Curcuruto and Sanetti did amounts to "back-of-the-napkin" calculations using unknown baselines figures that are subjected to allocation formulas that lack an empirical basis. For this reason, the NSSF's estimates are not replicable and without foundation.

[64] National Academies of Science, Engineering, and Medicine, *supra* note 25.

[65] Curcuruto also acknowledged that the NSSF's ammunition magazine estimates included magazines belonging to law enforcement and security agencies, firearms wholesalers and retailers, prohibited owners (such as criminals and domestic abusers), as well as magazines that have been illegally trafficked to other countries. Furthermore, Curcuruto confirmed that the NSSF fails to account for magazine attrition, which is the number of ammunition magazines that are lost, decommissioned (including due to deterioration), and destroyed. See Curcuruto *Wiese* Deposition, 2023, *supra* note 59, at 126:9–127:22, 128:6–129:9, 131:18–133:3, 152:2-6.

with a capacity greater than 10 rounds increasing from 53% to 74%. To put these numbers in a different perspective, according to the NSSF, *in less than a decade*, the number of ammunition magazines in circulation increased over six-fold and the number of ammunition magazines in circulation with a capacity greater than 10 rounds increased nearly ten-fold.[66] With regard to rifle magazines with a capacity of 30 or more rounds, the alleged proliferation in just 9 years has been 1,395%—which is basically an astronomical 15-fold increase.

The NSSF's most recent estimations of ammunition magazines in circulation appear to employ a methodology similar to the one that Curcuruto detailed in the *Wiese* case. As such, they cannot be verified, nor can they be reproduced.[67] Like the earliest iteration, the most recent NSSF magazine charts are without empirical foundation and unreliable.

As part of its 2024 Detachable Magazine Report, which contains the most recent iteration of the magazine chart, the NSSF also briefly mentions a national survey of gun owners that it conducted for purposes of determining the percentage of ammunition magazines that are personally owned.[68] The survey, including the survey instruments and the results, have not been made available for review and analysis. But some of the reported findings call the entirety of the survey into question. To begin with, the NSSF claims that its survey found that 36.3% of the U.S. population currently owns a firearm.[69] To put this in raw terms, according to the NSSF, approximately 121.2 million Americans own at least one firearm, which, if correct, would render

[66] It should be noted that the NSSF has not disavowed or abrogated its previous magazine charts, although raw data provided in an underlying, partly redacted Excel spreadsheet appears to offer different estimates from those offered in earlier iterations of the NSSF magazine charts. As a result, current estimates cannot be reproduced using older estimates. *See* Bates Number NSSF 002323.

[67] It appears that, for its most recent iteration of its magazine chart, the NSSF has altered its allocation formula. However, a review of some of the underlying data makes it clear that, again, the NSSF is merely applying simple allocation formulas across the board, without any empirical basis for employing such formulas. For example, reviewing a sampling of rifle magazine estimates from the 1990s indicates that they all produce whole number baselines when the estimates are divided by 0.55, which means that these estimates are all the product of being multiplied by the same factor. *See* Bates Number NSSF 002323. The NSSF is also still not identifying the baseline number of firearms that are being subjected to its allocation formulas. In essence, the NSSF's magazine estimates continue to amount to "back-of-the-napkin" calculations using unknown baselines figures that are subjected to allocation formulas that lack an empirical basis. As with earlier estimates, the NSSF's most recent estimates are not replicable and without foundation.

[68] NSSF, *Detachable Magazine Report, 1990-2021*, 2024, at 4, Bates Number NSSF 001997.

[69] *Id*.

all other national surveys drastically amiss. The NSSF is also reporting that 35.9% of gun owners possesses at least one handgun magazine with a capacity greater than 10 rounds and 24.3% of gun owners possesses at least one rifle magazine with a capacity greater than 10 rounds.[70] In other words, the NSSF is reporting that far more Americans own handgun magazines with a capacity greater than 10 rounds than own rifle magazines with a capacity greater than 10 rounds, while at the same time the NSSF is reporting that the number of rifle magazines with a capacity greater than 10 rounds in circulation (approximately 509 million) far outnumber the number of handgun magazines with a capacity greater than 10 rounds in circulation (approximately 209 million).[71] This too is another inconsistent pattern, on its face, that the NSSF has failed to explain.

Furthermore, the NSSF is reporting that when the responses are combined, 43.3% of gun owners have at least one magazine with a capacity greater than 10 rounds.[72] If 36.3% of the population (121.2 million people out of a total 334 million people) owns a gun, this would mean that 52.5 million people (which is 43.3% of 121.2 million people) own at least one magazine with a capacity greater than 10 rounds. The NSSF drew on its numbers to conclude that "approximately 8.9 percent of the U.S. population owns a magazine holding 11 or more rounds."[73] The problem with this assertion is that the underlying numbers do not match. If one were to calculate 8.9% of the current U.S. population of 334 million people, it would mean that 29.7 million people, not 52.5 million people, own a magazine with a capacity greater than 10 rounds. These estimates should be identical. Instead, there is a substantial discrepancy, which the NSSF does not explain. Moreover, because the NSSF has not made its underlying survey instruments and data available, there is no way to verify and reproduce any of these findings, let alone uncover any possible errors made by the NSSF. As a result, NSSF figures pertaining to magazine ownership are, like NSSF magazine circulation estimates, unreliable.

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[70] *Id*.

[71] *Id*., at 3-4, Bates Number NSSF 001996-NSSF 001997. *Compare* p. 3, Bates Number NSSF 001996, and p. 4, Bates Number NSSF 001997.

[72] *Id*., at 4, Bates Number NSSF 001997.

[73] *Id*.

IIIBiii. Inconsistencies Across the Different Sources on LCM Circulation and Ownership. The sources on LCM circulation and ownership rates—the English survey and the NSSF—are unreliable for the reasons discussed above. Furthermore, as with the estimates pertaining to AR-15-style rifles, the estimates pertaining to LCMs contradict each other. Again, both sources cannot be correct. And, given the flaws with each source, it is highly probable that their respective set of estimates are both inaccurate. Table 3 provides a breakdown of the key estimates that have been reported by each source.

Table 3
Comparison of English and NSSF Estimates

Source	Estimated Percentage of LCM Owners	Estimated Number of LCMs	Estimated Number of Americans That Personally Own LCMs
English Survey	48	551 million	39 million
NSSF	43.3	964 million	52.5 million

IIIC. Summary

As shown above, most sources that have attempted to gauge circulation and ownership of modern sporting rifles and LCMs are methodologically flawed and, therefore, unreliable. The bottom line is that the number of assault weapons and LCMs in circulation or that are personally owned by American gun owners is unknown. As such, the circulation and ownership rates for assault weapons and LCMs are indeterminable. One aspect of firearm circulation and ownership that is known with reasonable certainty is that handguns are the most common type of firearm in circulation and personally owned—not rifles, and most certainly not rifles that qualify as assault weapons.

IV. USE OF ASSAULT WEAPONS AND LCMs

Firearms are instruments of violence that are used to perpetrate violent crime (offensive gun uses) as well as to protect people or property (defensive gun uses). The following section draws on available evidence to discuss how assault weapons and LCMs are used in the United States for offensive and defensive purposes.

IVA. Offensive Gun Uses

Data on the use of assault weapons or LCMs to commit violent crimes other than mass shootings are sparse. Indeed, the only recent source to have examined this relationship appears to be a 2018 peer-reviewed analysis of "crime guns"—guns involved in a crime that have been recovered and traced—tied to violent crimes in 10 cities across the United States plus those traced nationwide by the ATF, at various times between 2011 and 2014.[74] The percentage of crime guns across the 10 metropolitan areas that were assault weapons ranged from a low of 2.4% in Baltimore, Maryland, to a high of 8.5% in Syracuse, New York. The mean average of assault-weapon averages for crime guns recovered across the 10 cities was 4.3%.[75] Similarly, approximately 5% of the nearly 500,000 crime guns traced nationwide by the ATF between 2013 and 2014 were assault weapons.[76]

In addition, the study examined the firearm categories (handguns, rifles, or shotguns) of the recovered assault weapons in the 10 cities: "Assault rifles (e.g., variations of the AR-15 or AK-47) accounted for the majority of AWs [assault weapons] in all sites and more than three-quarters in all but one (Richmond). The remaining AWs [assault weapons] consisted entirely (or nearly so) of assault pistols (e.g., the TEC-9 or TEC-22)."[77]

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[74] Christopher S. Koper et al., "Criminal Use of Assault Weapons and High-Capacity Semiautomatic Firearms: An Updated Examination of Local and National Sources," 95 *Journal of Urban Health* 313 (2018). The 10 cities covered in the study were Baltimore, MD, Hartford, CT, Kansas City, MO, Milwaukee, WI, Minneapolis, MN, Richmond, VA, Rochester, NY, Sacramento, CA, Seattle, WA, and Syracuse, NY.

[75] *Id*., at 317.

[76] *Id*., at 318.

[77] *Id*., at 316.

The same study was also able to assess semiautomatic crime guns with LCMs recovered by police in 8 of the 10 cities.[78] The range ran from a low of 14.6% of recovered guns with LCMs in Syracuse, New York, to a high of 36.2% in both Kansas City, Missouri, and Seattle, Washington. The mean average of LCM-crime-gun averages in the 8 cities was 26.0%.[79] Comparing LCM-related incidents in 3 cities from the study timeframe to earlier data collected while the federal Assault Weapons Ban was in effect, the authors found upward trends ranging from 48.6% in Baltimore, Maryland, to a high of 111.5%, in Richmond, Virginia, in the decade or so since the federal ban expired.[80] The study's lead authors, in a follow-up study published in 2019, examined the data from Minneapolis, Minnesota, in greater depth and concluded that shootings involving "high-volume gunfire" (more than 10 shots fired) were more likely to involve an LCM.[81] Moreover, in comparison to incidents that involved 10 or less shots fired, high-volume gunfire incidents were three times more likely to result in multiple gunshot-wound victims.[82]

The initial 2018 study also reviewed FBI data on the firearms used in the murder of law enforcement officials between 2009 and 2013. After excluding instances where a police officer's own firearm was used to kill the officer, the study found that assault weapons and semiautomatic firearms with LCMs, respectively, accounted for 13.2% and 40.6% of the firearms that were used to shoot and kill police officers.[83] Of these assault weapons that were used to murder law enforcement officers, 97% were assault rifles.[84] Performing a trend analysis comparing the time-period of 2003-2007 to the time-period of 2009-2013, the authors found a 33.6% increase in the use of firearms with LCMs to murder police officers.[85]

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[78] *Id.*, at 317. Of the 10 cities listed in *supra* note 74, estimates were unavailable for Rochester, NY, and Sacramento, CA.

[79] *Id.*

[80] *Id.*, at 319.

[81] Christopher S. Koper et al., "Gunshot Victimisations Resulting from High-Volume Gunfire Incidents in Minneapolis: Findings and Policy Implications," 25 *Injury Prevention* i9 (2019), at i10.

[82] *Id.*

[83] Koper et al., *supra* note 74, at 318.

[84] *Id.*, at 317.

[85] *Id.*, at 319.

Unlike data on how assault weapons and LCMs relate to violent crime in general, there is ample data on how assault weapons and LCMs relate to mass shootings. A review of this data points to three key takeaways: (1) mass shootings resulting in double-digit fatalities are relatively modern phenomena in American history, related to the use of assault weapons and LCMs; (2) mass shootings pose a significant—and growing—threat to American public safety; and (3) high-fatality mass shootings, resulting in six or more victims killed, that have involved assault weapons and/or LCMs, on average, have resulted in a substantially larger loss of life than similar incidents that did not involve assault weapons and/or LCMs.[86]

IVAi. Double-Digit Fatality Mass Shootings in American History Are Post-World War II Phenomena and They Often Involve Assault Weapons and LCMs. I examined the historical occurrence and distribution of mass shootings resulting in 10 or more victims killed since 1776 (Table 4). A lengthy search uncovered several informative findings.[87] In terms of the origins of this form of extreme gun violence, there is no known occurrence of a mass shooting resulting in double-digit fatalities at any point in time during the 173-year period between the nation's founding in 1776 and 1948. The first known incident resulting in 10 or more deaths occurred in 1949. In other words, for 70% of its 247-year existence as a nation, the U.S. did not experience a mass shooting resulting in double-digit fatalities, making them relatively modern phenomena.

After the first such incident in 1949, 17 years passed until a similar mass shooting occurred in 1966. The third such mass shooting then occurred 9 years later, in 1975. And the fourth such

[86] For purposes of this report, mass shootings are defined in a manner consistent with my book *Rampage Nation*, *supra* note 1 (*see* Excerpt Attached as **Exhibit H**). "Mass shootings" are shootings resulting in four or more victims being shot (fatally or non-fatally), regardless of location or underlying motive. As a subset of mass shootings, "high-fatality mass shootings" (also referred to as "gun massacres") are defined as shootings resulting in 6 or more victims being shot to death, regardless of location or underlying motive. The data on high-fatality mass shootings is from a data set that I maintain and continuously update. This data set is reproduced in **Exhibit I**. Unless stated otherwise, all of the data used to perform original analyses and to construct tables and figures in Section IVA of this report, as well as coding definitions, are drawn from **Exhibit I**.

[87] I searched for firearm-related "murders," using variations of the term, setting a minimum fatality threshold of 10 in the Newspaper Archive online newspaper repository, available at www.newspaperarchive.com. The Newspaper Archive contains local and major metropolitan newspapers dating back to 1607. Incidents of large-scale, inter-group violence such as mob violence, rioting, combat or battle skirmishes, and attacks initiated by authorities acting in their official capacity were excluded.

incident occurred 7 years after, in 1982. Basically, the first few mass shootings resulting in 10 or more deaths did not occur until the post-World War II era. Furthermore, these first few double-digit-fatality incidents occurred with relative infrequency, although the temporal gap between these first four incidents shrank with each event (Table 4 and Figure 9).

The distribution of double-digit-fatality mass shootings changes in the early 1980s, when five such events took place in a span of just five years (Table 4 and Figure 9). This timeframe also reflects the first time that assault weapons were used to perpetrate mass shootings resulting in 10 or more deaths: the 1982 Wilkes-Barre, PA, massacre (involving an AR-15 rifle and resulting in 13 deaths) and the 1984 San Ysidro, CA, massacre (involving an Uzi pistol and resulting in 21 deaths). But this cluster of incidents was followed by a 20-year period in which only 2 double-digit-fatality mass shootings occurred (Figure 9). This period of time from 1987-2007 correlates with three important federal firearms measures: the 1986 Firearm Owners Protection Act, the 1989 C.F.R. "sporting use" importation restrictions, and the 1994 Federal Assault Weapons Ban.

It is well-documented in the academic literature that, after the Federal Assault Weapons Ban expired in 2004, mass shooting violence increased substantially.[88] Mass shootings that resulted in 10 or more deaths were no exception, following the same pattern. In the 56 years from 1949 through 2004, there were a total of 10 mass shootings resulting in double-digit fatalities (a frequency rate of one incident every 5.6 years). In the 18 years since 2004, there have been 20 double-digit-fatality mass shootings (a frequency rate of one incident every 0.9 years). In other words, the frequency rate has increased over six-fold since the Federal Assault Weapons Ban expired (Table 4 and Figure 9).

Overall, over three-quarters of the mass shootings resulting in 10 or more deaths involved assault weapons and/or LCMs (Table 4).

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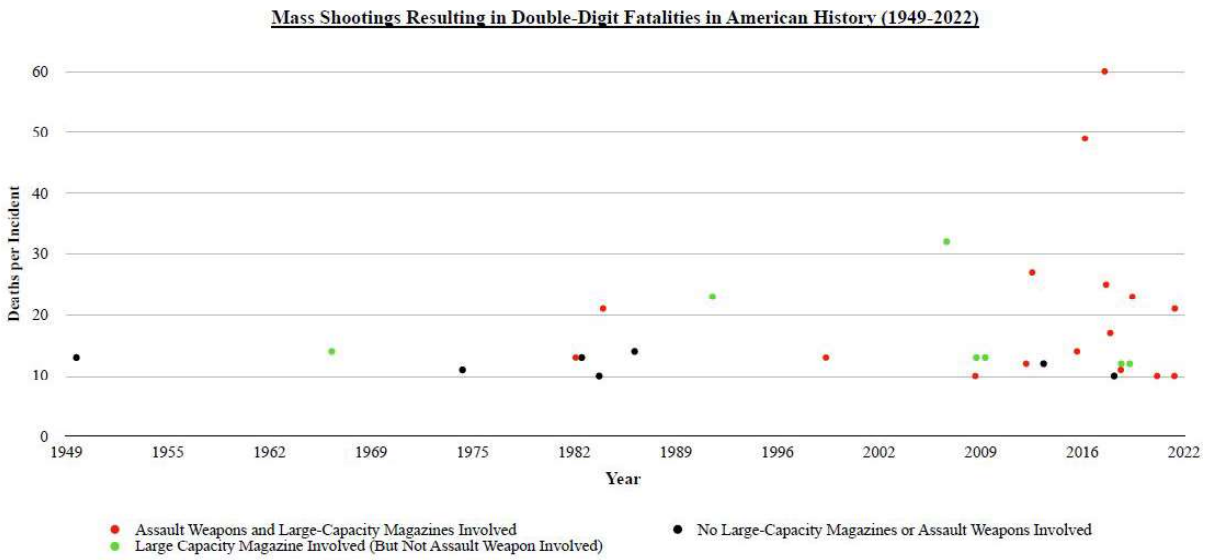
[88] *See*, for example, Louis Klarevas, *supra* note 1; Louis Klarevas et al., *supra* note 2; Charles DiMaggio et al., "Changes in US Mass Shooting Deaths Associated with the 1994-2004 Federal Assault Weapons Ban: Analysis of Open-Source Data," 86 *Journal of Trauma and Acute Care Surgery* 11 (2019); Lori Post et al., "Impact of Firearm Surveillance on Gun Control Policy: Regression Discontinuity Analysis," 7 *JMIR Public Health and Surveillance* (2021); and Philip J. Cook and John J. Donohue, "Regulating Assault Weapons and Large-Capacity Magazines for Ammunition," 328 *JAMA*, September 27, 2022.

Table 4
Mass Shootings Resulting in Double-Digit Fatalities in U.S. History, 1776-2022

	Date	Location	Deaths	Involved Assault Weapon(s)	Involved LCM(s)
1	9/6/1949	Camden, NE	13	N	N
2	8/1/1966	Austin, TX	14	N	Y
3	3/30/1975	Hamilton, OH	11	N	N
4	9/25/1982	Wilkes-Barre, PA	13	Y	Y
5	2/18/1983	Seattle, WA	13	N	N
6	4/15/1984	Brooklyn, NY	10	N	N
7	7/18/1984	San Ysidro, CA	21	Y	Y
8	8/20/1986	Edmond, OK	14	N	N
9	10/16/1991	Killeen, TX	23	N	Y
10	4/20/1999	Littleton, CO	13	Y	Y
11	4/16/2007	Blacksburg, VA	32	N	Y
12	3/10/2009	Geneva County, AL	10	Y	Y
13	4/3/2009	Binghamton, NY	13	N	Y
14	11/5/2009	Fort Hood, TX	13	N	Y
15	7/20/2012	Aurora, CO	12	Y	Y
16	12/14/2012	Newtown, CT	27	Y	Y
17	9/16/2013	Washington, DC	12	N	N
18	12/2/2015	San Bernardino, CA	14	Y	Y
19	6/12/2016	Orlando, FL	49	Y	Y
20	10/1/2017	Las Vegas, NV	60	Y	Y
21	11/5/2017	Sutherland Springs, TX	25	Y	Y
22	2/14/2018	Parkland, FL	17	Y	Y
23	5/18/2018	Santa Fe, TX	10	N	N
24	10/27/2018	Pittsburgh, PA	11	Y	Y
25	11/7/2018	Thousand Oaks, CA	12	N	Y
26	5/31/2019	Virginia Beach, VA	12	N	Y
27	8/3/2019	El Paso, TX	23	Y	Y
28	3/22/2021	Boulder, CO	10	Y	Y
29	5/14/2022	Buffalo, NY	10	Y	Y
30	5/24/2022	Uvalde, TX	21	Y	Y

Note: Death tolls do not include perpetrators. An incident was coded as involving an assault weapon if at least one of the firearms discharged was defined as an assault weapon in (1) the 1994 Federal Assault Weapons Ban or (2) the statutes of the state where the gun massacre occurred. An incident was coded as involving an LCM if at least one of the firearms discharged had an ammunition-feeding device holding more than 10 rounds.

Figure 9
Mass Shootings Resulting in Double-Digit Fatalities in U.S. History, 1949-2022



IVAii. Mass Shootings Are a Growing Threat to Public Safety. Examining mass-casualty acts of violence in the United States since 1991 points to two disturbing patterns. First, as demonstrated in Table 5, the deadliest individual acts of intentional criminal violence in the United States since the terrorist attack of September 11, 2001, have all been mass shootings. Second, as displayed in Figures 10-11, the problem of high-fatality mass shooting violence is on the rise. To put the increase over the last three decades into perspective, between the 1990s and the 2010s, the average population of the United States increased approximately 20%. However, when the number of people killed in high-fatality mass shootings in the 1990s is compared to the number killed in such incidents in the 2010s, it reflects an increase of 260%. In other words, the rise in mass shooting violence has far outpaced the rise in national population—by a factor of 13. A key takeaway from these patterns and trends is that mass shootings pose a significant—and growing—threat to American public safety.

Table 5
The Deadliest Acts of Intentional Criminal Violence in the U.S. since 9/11

	Deaths	Date	Location	Type of Violence
1	60	October 1, 2017	Las Vegas, NV	Mass Shooting
2	49	June 12, 2016	Orlando, FL	Mass Shooting
3	32	April 16, 2007	Blacksburg, VA	Mass Shooting
4	27	December 14, 2012	Newtown, CT	Mass Shooting
5	25	November 5, 2017	Sutherland Springs, TX	Mass Shooting
6	23	August 3, 2019	El Paso, TX	Mass Shooting
7	21	May 24, 2022	Uvalde, TX	Mass Shooting

Figure 10
Annual Trends in High-Fatality Mass Shooting Incidents, 1991-2022

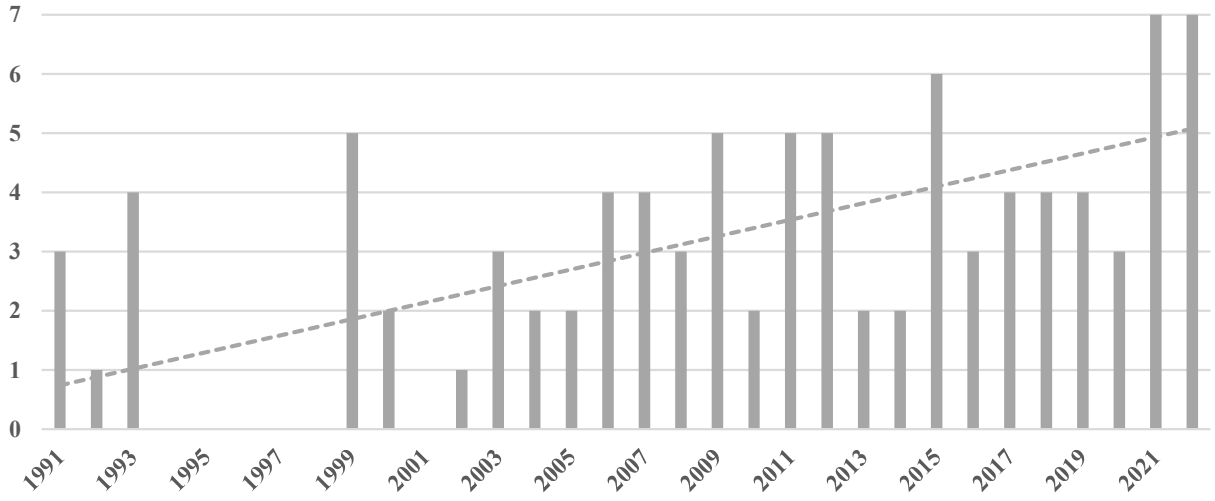
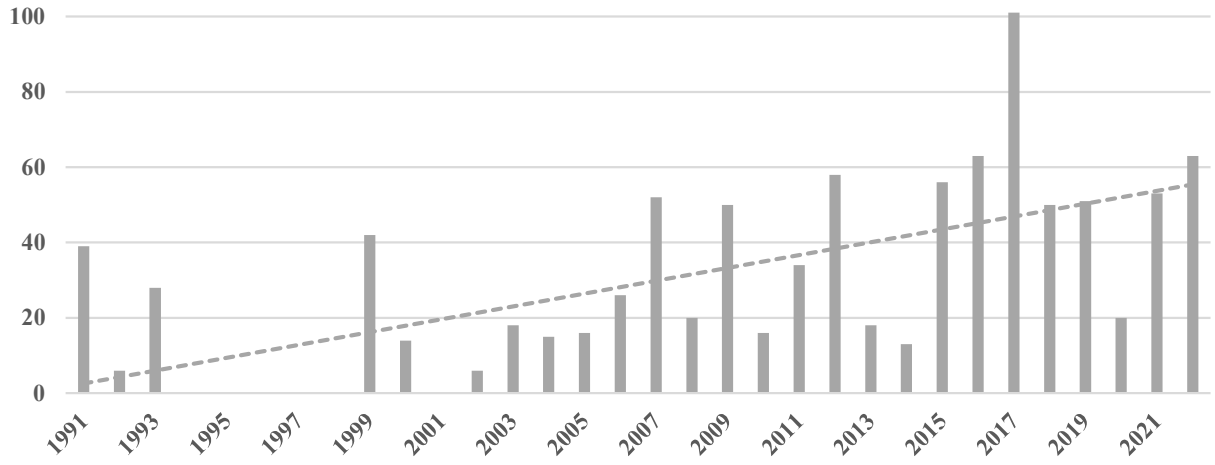


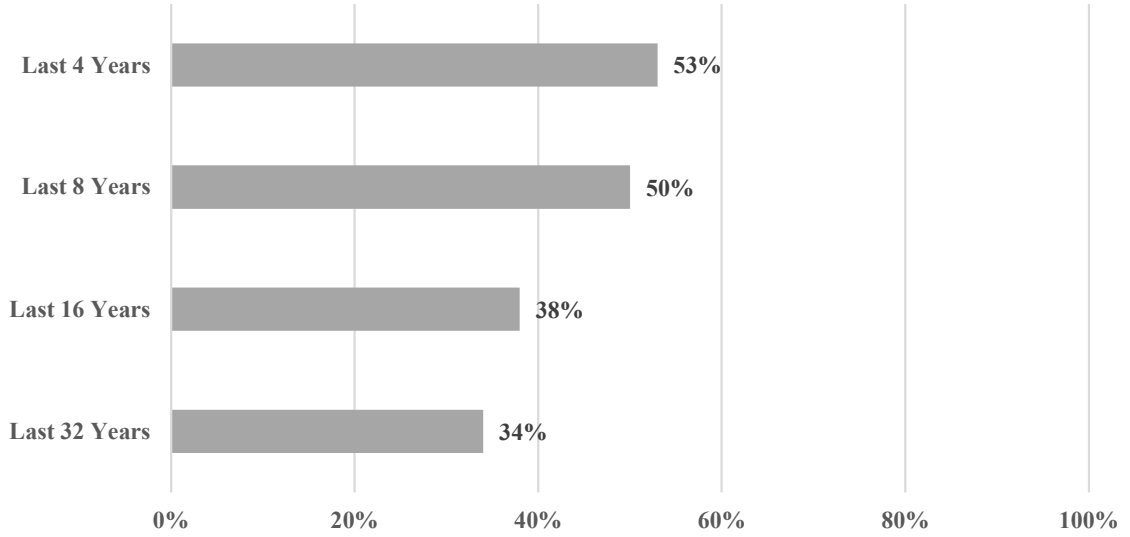
Figure 11
Annual Trends in High-Fatality Mass Shooting Fatalities, 1991-2022



IVAiii. The Use of Assault Weapons and LCMs Are Major Factors in the Rise of Mass Shooting Violence. In addition to showing that the frequency and lethality of high-fatality mass shootings are on the rise nationally, the data point to another striking pattern: both assault weapons and LCMs are being used with increased frequency to perpetrate gun massacres. As shown in Figures 12-14, based on high-fatality mass shootings where details allow a determination on the use of assault weapons and LCMs are available, the pattern is particularly marked of late, with over half of all incidents in the last four years involving assault weapons, all incidents in the last four years involving LCMs having a capacity greater than 10 rounds, regardless of the type of firearm ("federal definition" hereinafter), and four out of five incidents involving LCMs having a capacity greater than 10 rounds for long guns and greater than 15 rounds for handguns, as defined by Illinois statute ("Illinois definition" hereinafter). As shown in Figures 15-17, a similar pattern is found when examining deaths in high-fatality mass shootings in the last four years, with 62% of deaths resulting from incidents involving assault weapons, 100% of deaths resulting from incidents involving LCMs as defined by the 1994 federal statute, and 82% of deaths resulting from incidents involving LCMs as defined by Illinois statute. These trends clearly demonstrate that, among perpetrators of gun massacres, there is a growing preference for using assault weapons and LCMs to pull off their attacks.[89]

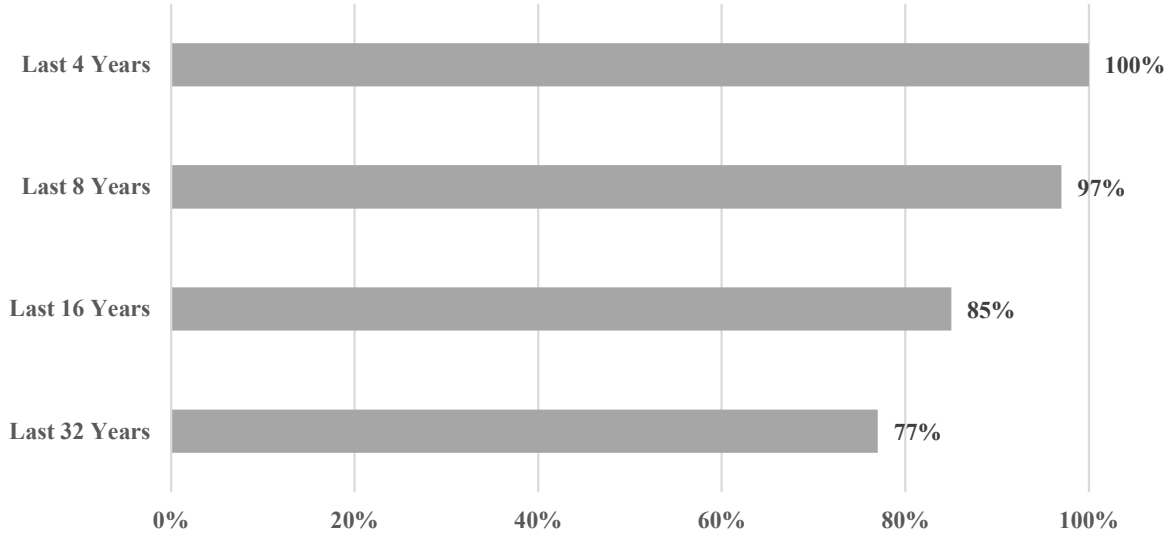
[89] Out of all 93 high-fatality mass shootings in the United States between 1991 and 2022, it cannot be determined whether LCMs were used in 14 of those incidents. Furthermore, for 2 of these 14 incidents, it is also not possible to determine whether they involved assault weapons. Therefore, the tables, figures, and percentages discussed in Sections IVAii and IVAiii of this report are based on calculations that only use data points from the incidents in which the involvement of assault weapons and/or LCMs could be determined.

Figure 12
Share of High-Fatality Mass Shooting Incidents Involving Assault Weapons, 1991-2022



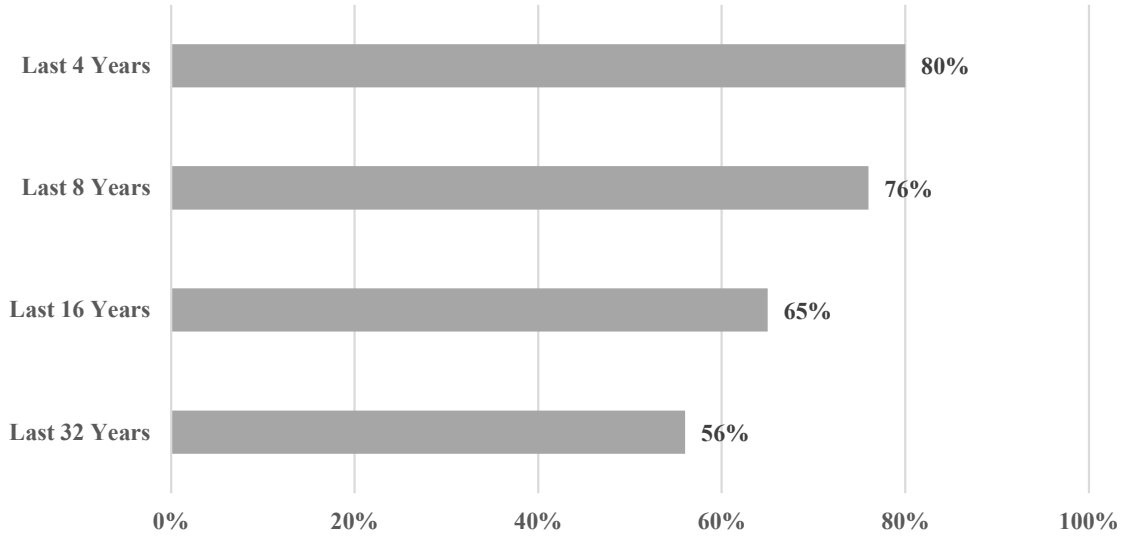
Note: The calculations in Figure 12 exclude incidents in which the firearms used are unknown.

Figure 13
Share of High-Fatality Mass Shooting Incidents Involving LCMs (Federal Definition of LCMs), 1991-2022



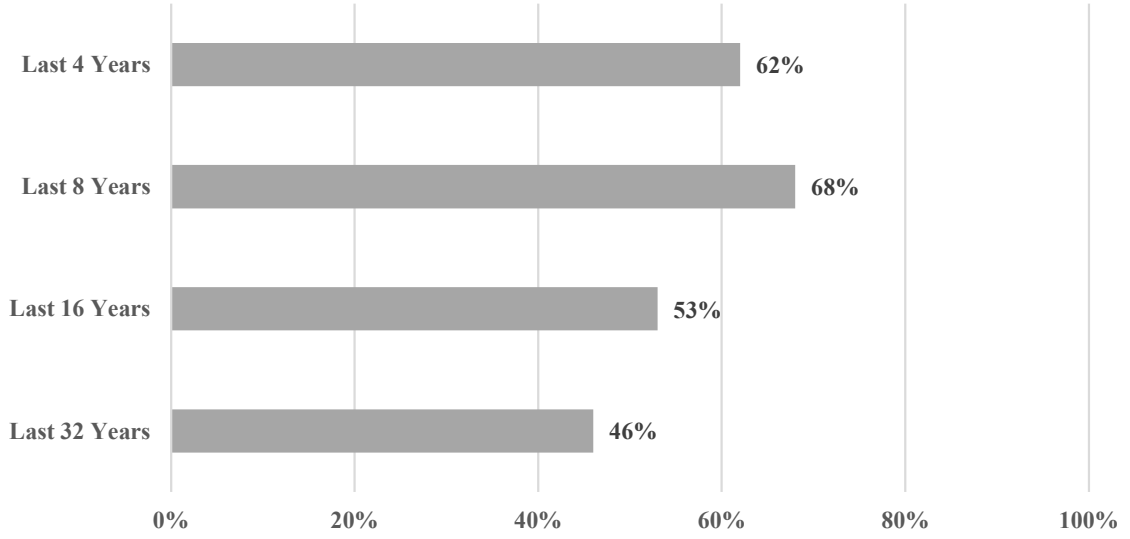
Note: The calculations in Figure 13 exclude incidents in which it is unknown if LCMs were used.

Figure 14
Share of High-Fatality Mass Shooting Incidents Involving LCMs (Illinois Definition of LCMs), 1991-2022



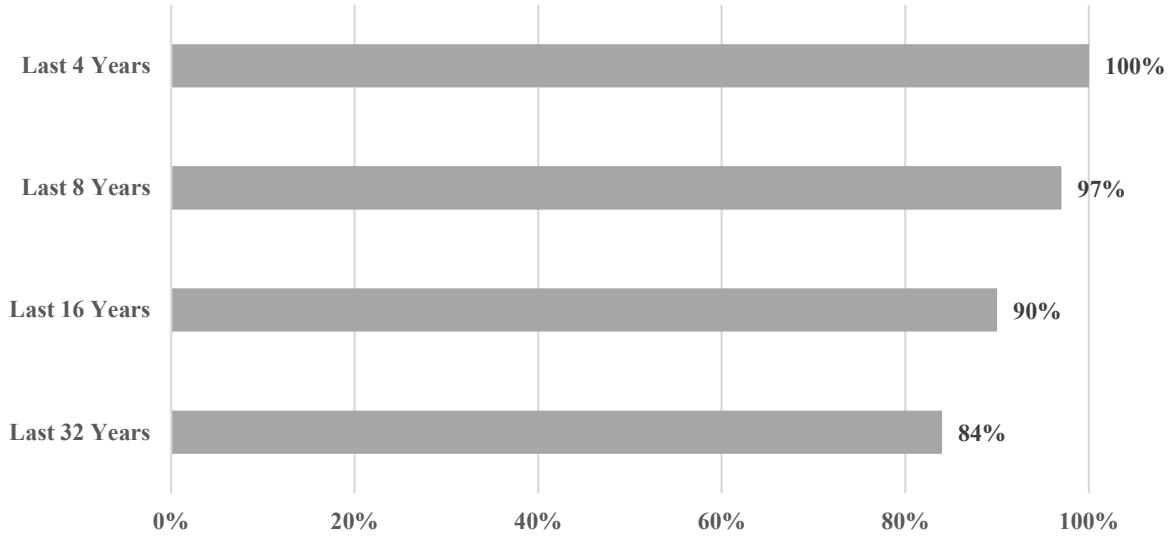
Note: The calculations in Figure 14 exclude incidents in which it is unknown if LCMs were used.

Figure 15
Share of High-Fatality Mass Shooting Deaths Resulting from Incidents Involving Assault Weapons, 1991-2022



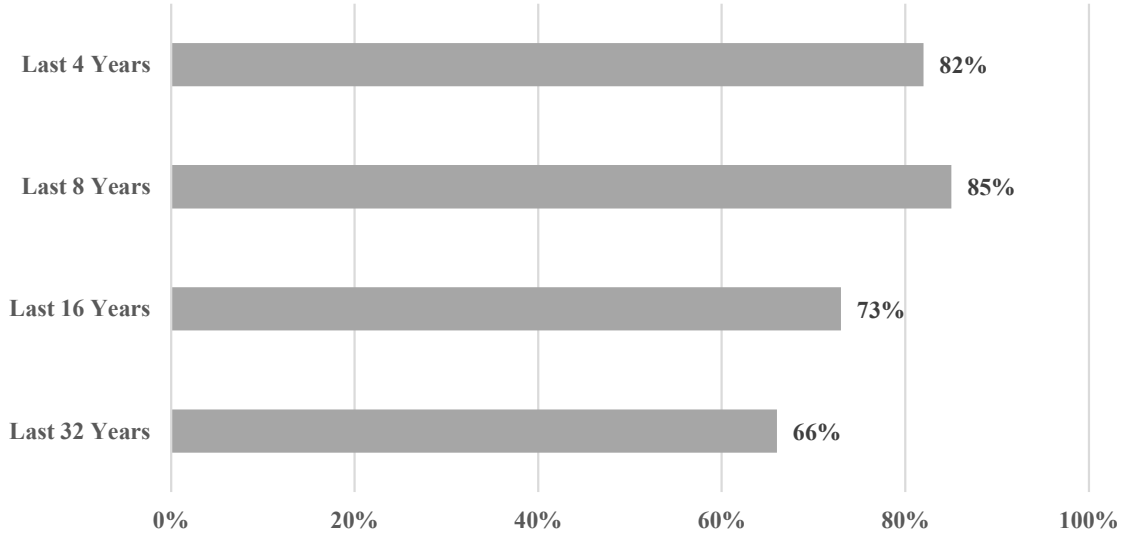
Note: The calculations in Figure 15 exclude incidents in which the firearms used are unknown.

Figure 16
Share of High-Fatality Mass Shooting Deaths Resulting from Incidents Involving LCMs (Federal Definition of LCMs), 1991-2022



Note: The calculations in Figure 16 exclude incidents in which it is unknown if LCMs were used.

Figure 17
Share of High-Fatality Mass Shooting Deaths Resulting from Incidents Involving LCMs (Illinois Definition of LCMs), 1991-2022



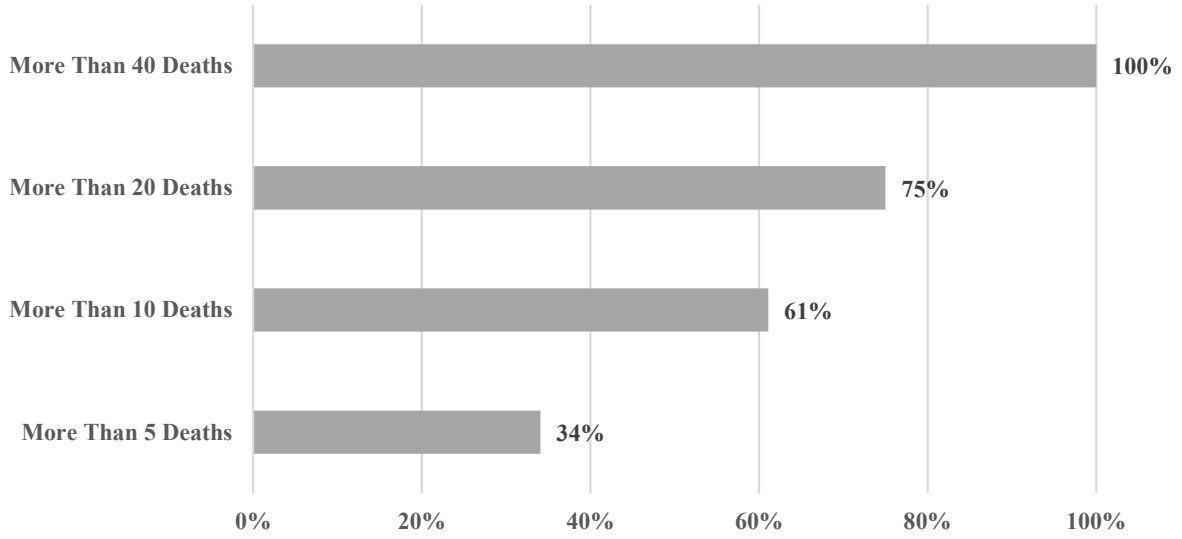
Note: The calculations in Figure 17 exclude incidents in which it is unknown if LCMs were used.

Another pattern that stands out when examining the relationship between assault weapons use and mass shooting violence reflects the disproportionately greater lethality associated with the use of assault weapons and LCMs. For instance, returning to the list of the 7 deadliest individual acts of intentional criminal violence in the United States since the coordinated terrorist attack of September 11, 2001, besides all seven of the incidents being mass shootings, 6 of the 7 incidents (86%) involved assault weapons and LCMs, as shown in Table 6. When examining all high-fatality mass shootings since 1991, the relationship between assault weapons use, LCM use, and higher death tolls is striking. In the past 32 years, assault weapons have been used in 34% of all high-fatality mass shootings, and LCMs as defined by the federal government and by Illinois have been used, respectively, in 77% and 56% of all high-fatality mass shootings. However, as the fatality thresholds of such incidents increase, so too do the shares of incidents involving assault weapons and LCMs. For instance, assault weapons were used in 75% of all mass shootings resulting in more than 20 deaths, and LCMs as defined by the federal government and by Illinois were used, respectively, in 100% and 88% of all mass shootings resulting in more than 20 deaths (Figures 18-20). As the data show, there is an association between mass shooting lethality and the use of assault weapons and LCMs.

Table 6
The Use of Assault Weapons and LCMs in the Deadliest Acts of Intentional Criminal Violence in the U.S. since 9/11

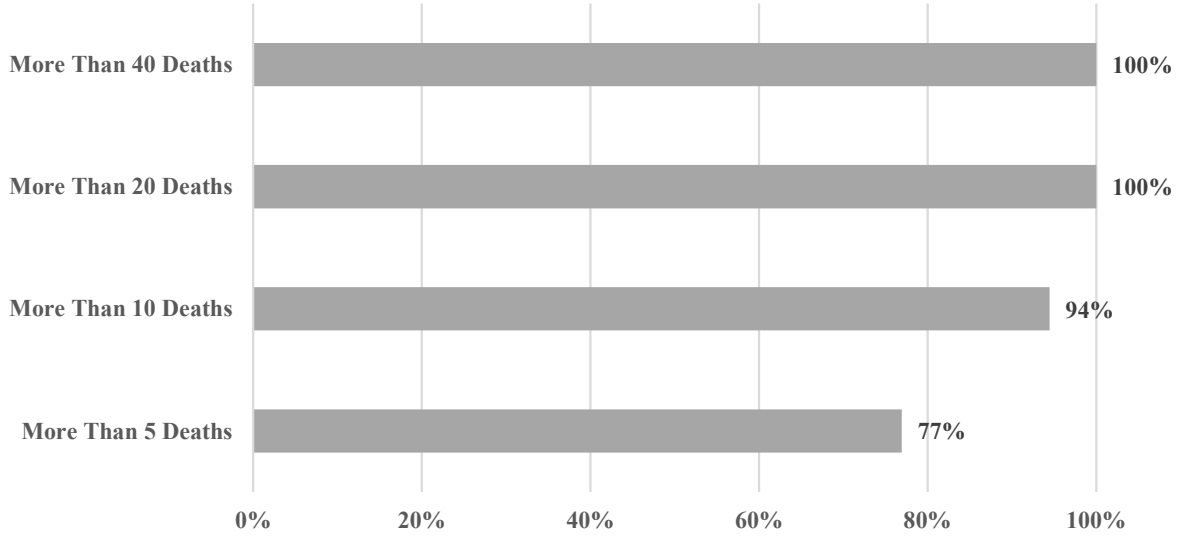
Deaths	Date	Location	Involved Assault Weapons	Involved LCMs (Federal Definition)	Involved LCMs (Illinois Definition)
60	10/1/2017	Las Vegas, NV	✓ (AR-15)	✓	✓
49	612/2016	Orlando, FL	✓ (AR-15)	✓	✓
32	4/16/2007	Blacksburg, VA		✓	
27	12/14/2012	Newtown, CT	✓ (AR-15)	✓	✓
25	11/5/2017	Sutherland Springs, TX	✓ (AR-15)	✓	✓
23	8/3/2019	El Paso, TX	✓ (AK-47)	✓	✓
21	5/24/2022	Uvalde, TX	✓ (AR-15)	✓	✓

Figure 18
Percentage of High-Fatality Mass Shootings Involving Assault Weapons by Fatality Threshold, 1991-2022



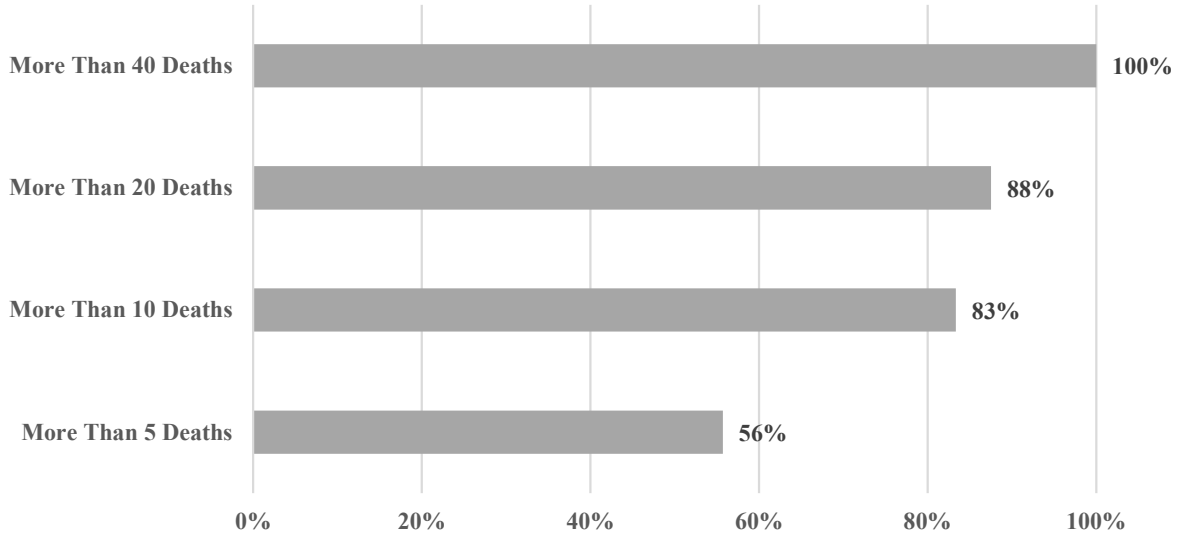
Note: The calculations in Figure 18 exclude incidents in which the firearms used are unknown.

Figure 19
Percentage of High-Fatality Mass Shootings Involving LCMs (Federal Definition of LCMs) by Fatality Threshold, 1991-2022



Note: The calculations in Figure 19 exclude incidents in which it is unknown if LCMs were used.

Figure 20
Percentage of High-Fatality Mass Shootings Involving LCMs (Illinois Definition of LCMs) by Fatality Threshold, 1991-2022



Note: The calculations in Figure 20 exclude incidents in which it is unknown if LCMs were used.

Of the 91 high-fatality mass shootings since January 1, 1991, in which the type of firearm used is known, 31 involved assault weapons, resulting in 425 deaths. The average death toll for these 31 incidents is 13.7 fatalities per shooting. By contrast, the average death toll for the 60 incidents in which it is known assault weapons were not used (which resulted in 490 fatalities) is 8.2 fatalities per shooting (Table 7). Furthermore, defining LCMs using the capacity threshold of the 1994 federal ban, of the 79 high-fatality mass shootings since January 1, 1991, in which LCM use was determined, 61 involved LCMs, resulting in 704 deaths. The average death toll for these 61 incidents is 11.5 fatalities per shooting. The average death toll for the 18 incidents in which it is known LCMs were not used (which resulted in 132 fatalities) is 7.3 fatalities per shooting (Table 8). Reviewing the same 79 incidents for LCM involvement using the capacity threshold of the 2023 Illinois ban, 44 involved LCMs, resulting in 553 deaths. The average death toll for these 44 incidents is 12.6 fatalities per shooting. The average death toll for the 35 incidents in which it is known LCMs were not used (which resulted in 283 fatalities) is 8.1 fatalities per shooting (Table 8). In other words, in the last 32 years, the use of assault weapons and both types of LCMs (federal

and Illinois definitions) in gun massacres has, correspondingly, resulted in 67%, 58%, and 56% increases in average fatalities per incident (Tables 7-8).

Tables 9 and 10 show the average death tolls per high-fatality mass shooting incident that are attributable to assault weapons beyond deaths associated with the use of LCMs. In terms of the 1994 federal ban's magazine capacity threshold, when LCMs are not used, the average death toll is 7.3 fatalities. When LCMs are used, but not in conjunction with assault weapons, the average death toll is 9.2 fatalities. When LCMs are used with assault weapons, the average death toll is 14.0 fatalities. In terms of the 2023 Illinois ban's magazine capacity threshold, when LCMs are not used, the average death toll is 8.1 fatalities. When LCMs are used, but not in conjunction with assault weapons, the average death toll is 9.6 fatalities. When LCMs are used with assault weapons, the average death toll is 14.0 fatalities. The data show that using LCMs, as defined by the 1994 federal ban, without an assault weapon resulted in a 26% increase in the average death toll. However, using LCMs, as defined by the 1994 federal ban, with an assault weapon resulted in a 52% increase in the average death toll associated with incidents that involved LCMs without assault weapons and a 92% increase in the average death toll associated with incidents that involved neither LCMs nor assault weapons. The data also show that using LCMs, as defined by the 2023 Illinois ban, without an assault weapon results in a 19% increase in the average death toll. However, using LCMs, as defined by the 2023 Illinois ban, with an assault weapon results in a 46% increase in the average death toll associated with incidents that involved LCMs without assault weapons and a 73% increase in the average death toll associated with incidents that involve neither LCMs nor assault weapons. In other words, regardless of which magazine capacity threshold is used to code incidents, the increase in the death tolls for high-fatality mass shootings that involve LCMs and/or assault weapons is partly attributable to LCMs and partly attributable to assault weapons.

This review of the data suggests that assault weapons *and* LCMs are force multipliers when used in mass shootings.

Table 7
The Average Death Tolls Associated with the Use of Assault Weapons in High-Fatality Mass Shootings in the U.S., 1991-2022

	Average Death Toll for Incidents That Did Not Involve the Use of Assault Weapons	Average Death Toll for Incidents That Did Involve the Use of Assault Weapons	Percent Increase in Average Death Toll Associated with the Use of Assault Weapons
1991-2022	8.2 Deaths	13.7 Deaths	67%

Note: The calculations in Table 7 exclude incidents in which the firearms used are unknown.

Table 8
The Average Death Tolls Associated with the Use of LCMs in High-Fatality Mass Shootings in the U.S., 1991-2022

	Average Death Toll for Incidents That Did Not Involve the Use of LCMs	Average Death Toll for Incidents That Did Involve the Use of LCMs	Percent Increase in Average Death Toll Associated with the Use of LCMs
1991-2022 (Federal Definition of LCM)	7.3 Deaths	11.5 Deaths	58%
1991-2022 (Illinois Definition of LCM)	8.1 Deaths	12.6 Deaths	56%

Note: The calculations in Table 8 exclude incidents in which it is unknown if LCMs were used.

Table 9
The Average Death Tolls Associated with the Use of LCMs (Federal Definition of LCMs) and Assault Weapons in High-Fatality Mass Shootings in the U.S., 1991-2022

Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs but Not AWs	Percent Increase	Average Death Toll for Incidents Involving LCMs but Not AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase	Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase
7.3	9.2	26%	9.2	14.0	52%	7.3	14.0	92%

Note: The calculations in Table 9 exclude incidents in which it is unknown if assault weapons or LCMs were used.

Table 10
The Average Death Tolls Associated with the Use of LCMs (Illinois Definition of LCMs) and Assault Weapons in High-Fatality Mass Shootings in the U.S., 1991-2022

Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs but Not AWs	Percent Increase	Average Death Toll for Incidents Involving LCMs but Not AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase	Average Death Toll for Incidents Not Involving LCMs or AWs	Average Death Toll for Incidents Involving LCMs and AWs	Percent Increase
8.1	9.6	19%	9.6	14.0	46%	8.1	14.0	73%

Note: The calculations in Table 10 exclude incidents in which it is unknown if assault weapons or LCMs were used.

IVB. Defensive Gun Uses

There is very little systematically-collected evidence pertaining to defensive gun uses (DGUs) involving LCMs or assault weapons. The two main sources are the English survey and FBI reports on active shooter events in the United States.

IVBi. The English Survey. The English survey asked respondents to indicate whether they have ever been involved in a DGU: "Have you ever defended yourself or your property with a firearm, even if it was not fired or displayed? Please do not include military service, police work, or work as a security guard." Overall, the survey found that 4,654 respondents (out of 15,258 qualifying respondents) indicated that they had engaged in a combined 9,077 DGUs.[90] As a percentage, 31% of the qualifying survey pool had engaged in at least one DGU. In terms of the nature of the DGU, 51% involved brandishing a gun, 18% involved firing a gun, and 31% involved "neither" (which appears to be a category created to capture DGUs that implied that the defender possessed a gun

[90] To identify the 15,258 qualified number of respondents for inclusion in the analysis of reported DGUs, respondents were first screened to make sure that they had identified themselves as gun owners who completed the survey and answered the screening question toward the end of the survey with "none of the above" as prompted by the questionnaire. This resulted in 15,271 total respondents. From this group, 13 respondents, who did not answer the question of how many DGUs they had engaged in, were excluded, bring the final qualifying group to 15,258 respondents. All the survey data on DGUs came from the publicly available data set that Professor English uploaded to the Harvard Dataverse, *supra* note 11.

without a physical use of the gun).[91] The English survey found that 66% of DGUs involved a handgun, 21% involved a rifle (this would include, but not be limited to, AR-15-style rifles), and 13% involved a shotgun. The vast majority of DGUs, 79%, occurred on the defender's property, with over two-thirds of DGUs on the defender's property occurring outside the home and just under one-third occurring inside the home. The remaining 21% of DGUs breakdown as follows: 9% in public, 5% on someone else's property (either outside or inside someone else's home), 3% at work, and 4% at a location broadly classified as some "other" location. In terms of a pattern, most gun owners appear to have never engaged in a DGU. However, for those who indicated that they had engaged in at least one DGU, it appears that most common type of DGU occurred on one's property and involved the brandishing of a handgun.[92]

Because the survey asked participants to identify whether or not they had ever owned AR-15-style rifles or LCMs, it is possible to compare these respondents with respondents who never owned AR-15-style rifles or LCMs. Beginning with owners of AR-15-style rifles, a clear distinction emerges: respondents who indicated that they have owned AR-15-style rifles have engaged in far more DGUs than respondents who indicated that they have never owned such rifles. Those who have owned AR-15-style rifles made up 30% of the qualifying survey pool, yet they accounted for 50% of gun owners who had engaged in a DGU. Furthermore, while most DGUs for both categories of respondents (those who have and have not owned AR-15-style rifles) have

[91] The "neither" option in the survey was worded as follows: "Neither (for example, you verbally told someone you had a gun and that was sufficient)." If "neither" responses are excluded on grounds that they did not physically involve the use of firearm, the overall number of DGUs is reduced by 31%.

[92] There are numerous studies that call into question the veracity and/or accuracy of self-reported DGUs. See, for example, David Hemenway, "Survey Research and Self-Defense Gun Use: An Explanation of Extreme Overestimates," 87 *Journal of Criminal Law and Criminology* 1430 (1997); David Hemenway, "The Myth of Millions of Annual Self-Defense Gun Uses: A Case Study of Survey Overestimates of Rare Events," 10 *Chance* 6 (1997); Philip J. Cook, Jens Ludwig, and David Hemenway, "The Gun Debate's New Mythical Number: How Many Defensive Uses Per Year? 16 *Journal of Policy Analysis and Management* 463 (1997); John P. May et al., "Medical Care Solicitation by Criminals with Gunshot Wound Injuries: A Survey of Washington D.C. Jail Detainees," 48 *Journal of Trauma* 130 (2000); and John P. May and David Hemenway, "Do Criminals Go to the Hospital When They are Shot?" 8 *Injury Prevention* 236 (2002). One study in particular had five criminal court judges assess the self-reported accounts provided by gun owners who felt that they were engaging in a legitimate DGU and a majority of the judges, after assuming that the armed defenders had a permit authorizing them to carry a concealed weapon, concluded that the majority of accounts were illegal uses of a firearm. David Hemenway, Matthew Miller, and Deborah Azrael, "Gun Use in the United States: Results from Two National Surveys, 6 *Injury Prevention* 263 (2000).

been instances where a firearm was brandished (51% for both groups), by a margin of nearly two-to-one, owners of AR-15-style rifles discharged their firearms in DGUs more often than respondents who never owned an AR-15-style rifle.

Two other patterns—both similarities—also emerge from a review of the survey data. Most DGUs occurred on the defender's property and most DGUs involved a handgun. Only 16% of DGUs involving respondents who never owned an AR-15-style rifle involved a rifle (of any type). For respondents who have owned an AR-15-style rifle, 25% of DGUs involved a rifle (of any type). While the latter percentage is larger than the former percentage, the data still indicate that handguns are the preferred weapon for purposes of defense—for those who have never owned AR-15-style rifles (using handguns in 70% of their DGUs) as well as those who have owned AR-15-style rifles (using handguns in 63% of their DGUs).[93]

The English survey also sheds light on how those who have owned and have never owned LCMs engage in DGUs. As with respondents who have owned AR-15-style rifles, respondents who indicated that they have owned LCMs have engaged in disproportionately more DGUs than those respondents who indicated that they have never owned LCMs. Even though LCM owners accounted for 47% of all gun owners who participated in the survey, they accounted for 68% of all respondents who indicated that they had used a gun for defensive purposes.[94] All things being

[93] Another fascinating distinction between those who owned AR-15-style rifles and those who have never owned AR-15-style rifles involves the likelihood of being engaged in five or more DGUs. Owners of AR-15-style rifles made up 30% of the survey pool, but they accounted for 62% of the respondents who had engaged in five or more DGUs in their lifetimes. The majority of these for both groups involved handguns, not rifles, although, again, those who indicated that they have owned AR-15-style rifles discharged their firearms in DGUs at a rate that was double that of those who indicated that they have never owned AR-15-style rifles. One unexpected finding relates to the age of owners of AR-15-style rifles who have engaged in five or more DGUs. Intuitively, one would expect that the most likely gun owners to have engaged in five or more DGUs in their lifetimes would be those in the older demographic half (over 50 years of age). However, for both those who have owned AR-15-style rifles as well as those who have never owned AR-15-style rifles, those adults 50 years of age and under account for over half of the respondents who indicated that they have engaged in five or more DGUs. But more striking, while those adults 50 and under who never owned an AR-15-style rifle accounted for 55% of non-AR-15 owners who had engaged in five or more DGUs, adult owners of AR-15-style rifles 50 and under accounted for 82% of all AR-15 owners who had engaged in five or more DGUs. This is a substantial difference that reflects a higher likelihood of younger AR-15 owners to become more frequently engaged in DGUs.

[94] These are raw survey results that have not been subjected to weighting. As such, the results should be treated with caution as they might not be accurate or reliable.

equal, it would be expected that LCM-owners would participate in DGUs at a rate that is similar to their population among all gun owners.

The English survey data that allow for analysis of the relationship between DGUs, on the one hand, and owners of LCMs or AR-15-style rifles, on the other hand, are raw, unweighted data. It is unclear if the patterns just discussed would persist if the data were properly weighted. However, *on the assumption that these patterns would persist*, the English survey makes it clear that there is no evidence that rifles are the preferred firearm for defense of self, others, or property, not even for owners of AR-15-style rifles.[95] Indeed, there is no evidence whatsoever in the English survey that AR-15-style rifles are even used in DGUs.[96] A key takeaway from the survey, in terms of DGUs, is that handguns are the most commonly used firearms for defensive purposes.

IVBii. FBI Active Shooter Reports. An important question that, until now, has gone unanswered is: Are assault weapons used as frequently to stop mass shootings as they are to perpetrate them?[97] As shown above, assault weapons have been used in over one-third of high-fatality mass shootings since 1991 (Figure 12). And in the past eight years, the share of high-fatality mass shootings that have involved assault weapons has risen to at least half (Figure 12).

The Federal Bureau of Investigation (FBI) has been documenting active shooter incidents since 2000.[98] According to the FBI, active shootings are violent attacks that involve "one or more

[95] While not directly related to DGUs, Professor English does claim that, when assessing ownership of AR-15-style rifles, "Using survey weights based on in-survey demographics of firearms ownership has no effect on this estimate." English, *supra* note 7, at 33, Bates Number FFL SHARED 001062. Because Professor English does not report specific weighted results, this claim cannot be properly verified.

[96] In all fairness, this is because the English survey did not probe what specific types of rifles were used in DGUs. However, the *Washington Post*, in its survey, found that owners of AR-15-style rifle owners also owned rifles that would not be considered AR-15-style rifles. Guskin, Tambe, and Gerberg, *supra* note 33, Bates Numbers FFL SHARED 000315-000325.

[97] Given the limitations of the active shooter incident data reported by the FBI, it is not possible to discern whether any of the civilian DGUs involved an armed civilian using a firearm with an LCM at the time of the intervention. As such, it is not possible to perform a similar comparison between mass shootings perpetrated with LCM-equipped firearms and mass shootings thwarted with LCM-equipped firearms.

[98] All of the information in this sub-section, including definitions and data, are publicly available from the FBI. *See* FBI, *Active Shooter Safety Resources*, available at https://www.fbi.gov/how-we-can-help-you/safety-resources/active-shooter-safety-resources.

individuals actively engaged in killing or attempting to kill people in a populated area."[99] A simple way to conceptualize active shooter incidents is to think of them as attempted mass shootings. As part of its analysis of attempted mass shootings, the FBI identifies incidents that involved armed civilians using their personal firearms to intervene, regardless of whether the interventions were successful in stopping the attacks and/or neutralizing the perpetrator(s).

In the 23 years between January 1, 2000, and December 31, 2022, the FBI has identified 456 active shootings occurring in the United States. Out of these 456 active shooter incidents, 18 incidents (3.9%) involved defensive gun uses (DGUs) by civilians, excluding law enforcement or armed security.[100] Of these 18 DGUs, the firearm used by an armed private citizen intervening was identifiable in 17 incidents; 14 involved handguns and the remaining three involved long guns (one shotgun, one bolt-action rifle, and one rifle that would qualify as an assault weapon).[101] In other words, out of the 17 incidents where an armed civilian intervened and it was possible to identify the DGU firearm, only one incident (5.9%) involved an assault weapon.[102] Within the broader context of all active shooter incidents, only one incident out of 456 in the past 23 years (0.2%) is known to have involved an armed civilian intervening with an assault weapon.[103]

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[99] FBI, *Active Shooter Incidents in the United States in 2022*, April 2023, at 1, available at https://www.fbi.gov/file-repository/active-shooter-incidents-in-the-us-2022-042623.pdf/view. The FBI adds, "Implicit in this definition is the shooter's use of one or more firearms. The *active* aspect of the definition inherently implies the ongoing nature of the incidents, and thus the potential for the response to affect the outcome." *Id.* (emphasis in original). In addition to the report on incidents in 2022, the FBI has published seven other reports on active shooter incidents covering the following seven time-periods: 2000-2013, 2014-2015, 2016-2017, 2018, 2019, 2020, and 2021. All of these reports are available at the FBI's Active Shooter Safety Resources website, *supra* note 98.

[100] In 17 of the 18 DGU-involved active shooter incidents, there was an exchange of gunfire. For the one incident that did not involve an exchange of gunfire, the gun (a handgun) was in the possession of a person who helped to detain the active shooter after the shooting had ceased. FBI, *supra* notes 98 and 99.

[101] All 14 DGU incidents that involved handguns also involved armed civilians who held valid concealed-carry permits or were legally carrying their handguns. *Id.* In 12 of these 14 incidents, details about the types of handguns used in self-defense were available in news media accounts or in news media photographs from the crime scene. In two of the 14 incidents, the use of concealed handguns was inferred based on details about the shooting reported in news media accounts. There is no evidence that either of these two DGU incidents involved an assault pistol.

[102] The FBI also identifies an incident in which an armed individual (a local firefighter) subdued and detained a school shooter, but there is no evidence that the armed firefighter drew his handgun during the incident. *Id.* Moreover, local authorities have refused to comment on whether the firefighter ever drew his handgun. *See* Carla Field, *Firefighter Was Armed During Takedown of Shooting Suspect, Sheriff Says*, WYFF, October 3, 2016, available at https://www.wyff4.com/article/firefighter-was-armed-during-takedown-of-shooting-suspect-sheriff-says/7147424. Adding this incident to the 17 DGU-involved incidents where the type of firearm was identifiable would mean that 5.6% (as opposed to 5.9%) of the active shooter incidents, where an armed civilian intervened, involved an assault weapon.

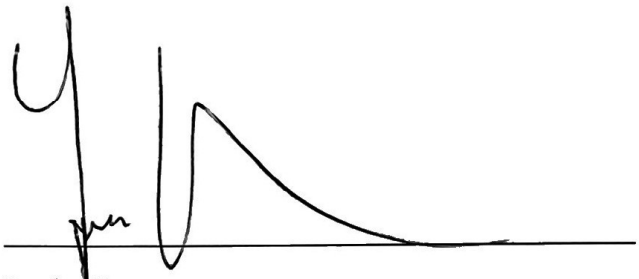
[103] FBI, *supra* notes 98 and 99. The one DGU that involved an assault weapon was the 2017 church massacre in Sutherland Springs, Texas. In that incident, an armed private citizen used an AR-15-style rifle to wound the perpetrator as he was attempting to flee the scene. While the perpetrator was still able to flee the scene despite being

IVC. Summary

As shown above, while assault weapons as well as firearms with LCMs are used to perpetrate violent crime, particularly the murder of police officers, their most prominent criminal use appears to be to perpetrate multiple-victim shootings. Mass shootings resulting in double-digit fatalities are relatively modern phenomena in American history, related to the use of assault weapons and LCMs. In the present era, high-fatality mass shootings, resulting in six or more victims killed, pose a significant—and growing—threat to American public safety. In particular, high-fatality mass shootings involving assault weapons and/or LCMs, on average, have resulted in a substantially larger loss of life than similar incidents that did not involve assault weapons and/or LCMs. Most high-fatality mass shootings now involve assault weapons and LCMs, which serve as force multipliers associated with higher average death tolls when used. Comparing offensive to defensive uses shows that assault weapons are used by civilians with a far greater frequency to perpetrate mass shootings than to stop them. Indeed, in terms of defensive gun uses, in general, the quintessential firearm used by the majority of gun owners appears to be the handgun. This may even be the case for owners of AR-15-style rifles, who appear to use handguns, not rifles, in the majority of their defensive gun uses.

shot, minutes later, he crashed his vehicle trying to escape and then took his life with his own firearm before law enforcement could apprehend him. *See* Adam Roberts, *Man Who Shot Texas Gunman Shares His Story*, KHBS/KHOG, November 7, 2017, available at https://www.4029tv.com/article/man-who-shot-texas-church-gunman-shares-his-story/13437943.

Executed on the 10th of May, 2024, at Nassau County, NY



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Author

Rampage Nation: Securing America from Mass Shootings

Current Positions

Research Professor, Teachers College, Columbia University, New York, NY, 2018-Present

Faculty Affiliate, Media and Social Change Lab (MASCLab), Teachers College, Columbia University, New York, NY, 2019-Present

Professional Experience

Academic Experience (Presented in Academic Years)

Associate Lecturer, Department of Global Affairs, University of Massachusetts – Boston, Boston, MA, 2015-2020

Senior Fulbright Scholar (Security Studies), Department of European and International Studies, University of Macedonia, Thessaloniki, Greece, 2011-2012

Founder and Coordinator, Graduate Transnational Security Program, Center for Global Affairs, New York University, New York, NY, 2009-2011

Faculty Affiliate, A. S. Onassis Program in Hellenic Studies, New York University, New York, NY, 2007-2011

Clinical Faculty, Center for Global Affairs, New York University, New York, NY, 2006-2011

Adjunct Professor, Center for Global Affairs, New York University, New York, NY, 2004-2006

Assistant Professor of Political Science, City University of New York – College of Staten Island, Staten Island, NY, 2003-2006

Associate Fellow, European Institute, London School of Economics and Political Science, London, England, UK, 2003-2004

Defense Analysis Research Fellow, London School of Economics and Political Science, London, England, UK, 2002-2004

Visiting Assistant Professor of Political Science and International Affairs, George Washington University, Washington, DC, 1999-2002

Adjunct Professor of Political Science, George Washington University, Washington, DC, 1998-1999

Adjunct Professor of International Relations, School of International Service, American University, Washington, DC, 1994-1995

Dean's Scholar, School of International Service, American University, Washington, DC, 1989-1992

Professional Experience (Presented in Calendar Years)

Consultant, National Joint Terrorism Task Force, Federal Bureau of Investigation, Washington, DC, 2015

Writer, Prometheus Books, Amherst, NY, 2012-2015

Consultant, United States Institute of Peace, Washington, DC, 2005, 2008-2009

Research Associate, United States Institute of Peace, Washington, DC, 1992-1998

Faculty Advisor, National Youth Leadership Forum, Washington, DC, 1992

Courses Taught

Graduate
Counter-Terrorism and Homeland Security
International Political Economy
International Politics in a Post-Cold War Era
International Security
Machinery and Politics of American Foreign Policy
Role of the United States in World Affairs
Security Policy
Theories of International Politics
Transnational Security
Transnational Terrorism
United States Foreign Policy

Undergraduate
American Government and Politics
European-Atlantic Relations
International Political Economy
International Relations
Transnational Terrorism
United States Foreign Policy

Scholarship

"Protocol for a Nationwide Case-Control Study of Firearm Violence Prevention Tactics and Policies in K-12 Schools," *PLOS ONE*, forthcoming 2024 (co-authored with Navjot Buttar, Sonali Rajan, et al.)

"State Firearm Laws, Gun Ownership, and K-12 School Shootings: Implications for School Safety," *Journal of School Violence*, 2022 (co-authored with Paul M. Reeping, Sonali Rajan, et al.)

"The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings, 1990-2017," *American Journal of Public Health*, November 2019 (co-authored with Andrew Conner and David Hemenway)

"Changes in U.S. Mass Shooting Deaths Associated with the 1994-2004 Federal Assault Weapons Ban," *Journal of Trauma and Acute Care Surgery*, May 2019 (correspondence)

Firearms on College Campuses: Research Evidence and Policy Implications, report prepared by the Johns Hopkins University Center for Gun Policy and Research for the Association of American Universities, October 2016 (co-authored with Daniel W. Webster, John J. Donohue, et al.)

Rampage Nation: Securing America from Mass Shootings, Prometheus Books, 2016

"No Relief in Sight: Barring *Bivens* Suits in Torture Cases," *Presidential Studies Quarterly*, June 2013

Review of James Edward Miller's *The United States and the Making of Modern Greece: History and Power, 1950-1974*, *Presidential Studies Quarterly*, June 2012 (book review)

"Trends in Terrorism Since 9/11," *Georgetown Journal of International Affairs*, Winter/Spring 2011

"The Death Penalty Should Be Decided Only Under a Specific Guideline," in Christine Watkins, ed., *The Ethics of Capital Punishment* (Cengage/Gale Publishers, 2011)

Saving Lives in the 'Convoy of Joy': Lessons for Peace-Keeping from UNPROFOR, United States Institute of Peace Case Study, 2009

"Casualties, Polls and the Iraq War," *International Security*, Fall 2006 (correspondence)

"The CIA Leak Case Indicting Vice President Cheney's Chief of Staff," *Presidential Studies Quarterly*, June 2006

"Were the Eagle and the Phoenix Birds of a Feather? The United States and the 1967 Greek Coup," *Diplomatic History*, June 2006

"Greeks Bearing Consensus: An Outline for Increasing Greece's Soft Power in the West," *Mediterranean Quarterly*, Summer 2005

"W Version 2.0: Foreign Policy in the Second Bush Term," *The Fletcher Forum of World Affairs*, Summer 2005

"Can You Sue the White House? Opening the Door for Separation of Powers Immunity in *Cheney v. District Court*," *Presidential Studies Quarterly*, December 2004

"Political Realism: A Culprit for the 9/11 Attacks," *Harvard International Review*, Fall 2004

Greeks Bearing Consensus: An Outline for Increasing Greece's Soft Power in the West, Hellenic Observatory Discussion Paper 18, London School of Economics, November 2004

Were the Eagle and the Phoenix Birds of a Feather? The United States and the 1967 Greek Coup, Hellenic Observatory Discussion Paper 15, London School of Economics, February 2004

"Not a Divorce," *Survival*, Winter 2003-2004 (correspondence)

"Media Impact," in Mark Rozell, ed., *The Media and American Politics: An Introduction* (Lanham, MD: Rowman & Littlefield, 2003)

"The Surrender of Alleged War Criminals to International Tribunals: Examining the Constitutionality of Extradition via Congressional-Executive Agreement," *UCLA Journal of International Law and Foreign Affairs*, Fall/Winter 2003

"The Constitutionality of Congressional-Executive Agreements: Insights from Two Recent Cases," *Presidential Studies Quarterly*, June 2003

"The 'Essential Domino' of Military Operations: American Public Opinion and the Use of Force," *International Studies Perspectives*, November 2002

"The Polls–Trends: The United States Peace Operation in Somalia," *Public Opinion Quarterly*, Winter 2001

American Public Opinion on Peace Operations: The Cases of Somalia, Rwanda, and Haiti, University of Michigan Dissertation Services, 1999

"Turkey's Right v. Might Dilemma in Cyprus: Reviewing the Implications of *Loizidou v. Turkey*," *Mediterranean Quarterly*, Spring 1999

"An Outline of a Plan Toward a Comprehensive Settlement of the Greek-Turkish Dispute," in Vangelis Calotychos, ed., *Cyprus and Its People: Nation, Identity, and Experience in an Unimaginable Community, 1955-1997*, Boulder, CO: Westview Press, 1998 (co-authored with Theodore A. Couloumbis)

"Prospects for Greek-Turkish Reconciliation in a Changing International Setting," in Tozun Bahcheli, Theodore A. Couloumbis, and Patricia Carley, eds., *Greek-Turkish Relations and U.S. Foreign Policy: Cyprus, the Aegean, and Regional Stability*, Washington, D.C.: U.S. Institute of Peace, 1997 (co-authored with Theodore A. Couloumbis) [Reproduced as "Prospects for Greek-Turkish Reconciliation in a Changing International Setting," in Robert L. Pfaltzgraff and Dimitris Keridis, eds., *Security in Southeastern Europe and the U.S.-Greek–Relationship*, London: Brassey's, 1997 (co-authored with Theodore A. Couloumbis)]

"Structuration Theory in International Relations," *Swords & Ploughshares*, Spring 1992

Commentaries and Correspondence

"Why Our Response to School Shootings Is All Wrong," *Los Angeles Times*, May 25, 2022 (co-authored with Sonali Rajan and Charles Branas)

"COVID-19 Is a Threat to National Security. Let's Start Treating It as Such," *Just Security*, August 6, 2020 (co-authored with Colin P. Clarke)

"If the Assault Weapons Ban 'Didn't Work,' Then Why Does the Evidence Suggest It Saved Lives?" *Los Angeles Times*, March 11, 2018 (correspondence)

"London and the Mainstreaming of Vehicular Terrorism," *The Atlantic*, June 4, 2017 (co-authored with Colin P. Clarke)

"Firearms Have Killed 82 of the 86 Victims of Post-9/11 Domestic Terrorism," *The Trace*, June 30, 2015 [Reproduced as "Almost Every Fatal Terrorist Attack in America since 9/1 Has Involved Guns." *Vice*, December 4, 2015]

"International Law and the 2012 Presidential Elections," Vitoria Institute, March 24, 2012

"Al Qaeda Without Bin Laden," CBS News *Opinion*, May 2, 2011

"Fuel, But Not the Spark," *Zocalo Public Square*, February 16, 2011

"After Tucson, Emotions Run High," *New York Times*, January 12, 2011 (correspondence)

"WikiLeaks, the Web, and the Need to Rethink the Espionage Act," *The Atlantic*, November 9, 2010

"Deprogramming Jihadis," *New York Times Magazine*, November 23, 2008 (correspondence)

"Food: An Issue of National Security," *Forbes* (Forbes.com), October 25, 2008

"An Invaluable Opportunity for Greece To Increase Its Standing and Influence on the World Stage," *Kathimerini* (Greece), January 13, 2005

"How Many War Deaths Can We Take?" *Newsday*, November 7, 2003

"Down But Not Out," London School of Economics Iraq War Website, April 2003

"Four Half-Truths and a War," *American Reporter*, April 6, 2003

"The Greek Bridge between Old and New Europe," *National Herald*, February 15-16, 2003

"Debunking a Widely-Believed Greek Conspiracy Theory," *National Herald*, September 21-22, 2002

"Debunking of Elaborate Media Conspiracies an Important Trend," *Kathimerini* (Greece), September 21, 2002 [Not Related to September 21-22, 2002, *National Herald* Piece with Similar Title]

"Cold Turkey," *Washington Times*, March 16, 1998

"If This Alliance Is to Survive . . .," *Washington Post*, January 2, 1998 [Reproduced as "Make Greece and Turkey Behave," *International Herald Tribune*, January 3, 1998]

"Defuse Standoff on Cyprus," *Defense News*, January 27-February 2, 1997

"Ukraine Holds Nuclear Edge," *Defense News*, August 2-8, 1993

Commentaries Written for *New York Daily News* – https://www.nydailynews.com/authors/?author=Louis+Klarevas

"Careful How You Talk about Suicide, Mr. President," March 25, 2020 (co-authored with Sonali Rajan, Charles Branas, and Katherine Keyes)

"Only as Strong as Our Weakest Gun Laws: The Latest Mass Shooting Makes a Powerful Case for Federal Action," November 8, 2018

"What to Worry, and not Worry, About: The Thwarted Pipe-Bomb Attacks Point to Homeland Security Successes and Vulnerabilities," October 25, 2018

"After the Santa Fe Massacre, Bury the 'Good Guy with a Gun' Myth: Armed Staffers Won't Deter Shooters or Keep Kids Safe," May 22, 2018

"It's the Guns (and Ammo), Stupid: Dissuading Killers and Hardening Targets Matter Too, But Access to Weapons Matters Most," February 18, 2018

"The Texas Shooting Again Reveals Inadequate Mental-Health Help in the U.S. Military," November 7, 2017

"Why Mass Shootings Are Getting Worse: After Vegas, We Urgently Must Fix Our Laws," October 2, 2017

"N.Y. Can Lead the Nation in Fighting Child Sex Trafficking," April 21, 2009 (co-authored with Ana Burdsall-Morse)

"Crack Down on Handguns – They're a Tool of Terror, Too," October 25, 2007

Commentaries Written for *The Huffington Post* – www.huffingtonpost.com/louis-klarevas

"Improving the Justice System Following the Deaths of Michael Brown and Eric Garner," December 4, 2014

"American Greengemony: How the U.S. Can Help Ukraine and the E.U. Break Free from Russia's Energy Stranglehold," March 6, 2014

"Guns Don't Kill People, Dogs Kill People," October 17, 2013

"Romney the Liberal Internationalist?" October 23, 2012

"Romney's Unrealistic Foreign Policy Vision: National Security Funded by Money Growing Trees," October 10, 2012

"Do the Wrong Thing: Why Penn State Failed as an Institution," November 14, 2011

"Holding Egypt's Military to Its Pledge of Democratic Reform," February 11, 2011

"The Coming Twivolutions? Social Media in the Recent Uprisings in Tunisia and Egypt," January 31, 2011

"Scholarship Slavery: Does St. John's 'Dean of Mean' Represent a New Face of Human Trafficking?" October 6, 2010

"Misunderstanding Terrorism, Misrepresenting Islam," September 21, 2010

"Bombing on the Analysis of the Times Square Bomb Plot," May 5, 2010

"Do the Hutaree Militia Members Pose a Terrorist Threat?" May 4, 2010

"Addressing Mexico's Gun Violence One Extradition at a Time," March 29, 2010

"Terrorism in Texas: Why the Austin Plane Crash Is an Act of Terror," February 19, 2010

"Securing American Primacy by Tackling Climate Change: Toward a National Strategy of Greengemony," December 15, 2009

"Traffickers Without Borders: A 'Journey' into the Life of a Child Victimized by Sex Trafficking," November 17, 2009

"Beyond a Lingering Doubt: It's Time for a New Standard on Capital Punishment," November 9, 2009

"It's the Guns Stupid: Why Handguns Remain One of the Biggest Threats to Homeland Security," November 7, 2009

"Obama Wins the 2009 Nobel Promise Prize," October 9, 2009

Commentaries for *Foreign Policy* – www.foreignpolicy.com

"The White House's Benghazi Problem," September 20, 2012

"Greeks Don't Want a Grexit," June 14, 2012

"The Earthquake in Greece," May 7, 2012

"The Idiot Jihadist Next Door," December 1, 2011

"Locked Up Abroad," October 4, 2011

Commentaries for *The New Republic* – www.tnr.com/users/louis-klarevas

"What the U.N. Can Do To Stop Getting Attacked by Terrorists," September 2, 2011

"Is It Completely Nuts That the British Police Don't Carry Guns? Maybe Not," August 13, 2011

"How Obama Could Have Stayed the Execution of Humberto Leal Garcia," July 13, 2011

"After Osama bin Laden: Will His Death Hasten Al Qaeda's Demise?" May 2, 2011

"Libya's Stranger Soldiers: How To Go After Qaddafi's Mercenaries," February 28, 2011

"Closing the Gap: How To Reform U.S. Gun Laws To Prevent Another Tucson," January 13, 2011

"Easy Target," June 13, 2010

"Death Be Not Proud," October 27, 2003 (correspondence)

Legal Analyses Written for *Writ* – writ.news.findlaw.com/contributors.html#klarevas

"Human Trafficking and the Child Protection Compact Act of 2009," *Writ* (FindLaw.com), July 15, 2009 (co-authored with Christine Buckley)

"Can the Justice Department Prosecute Reporters Who Publish Leaked Classified Information? Interpreting the Espionage Act," *Writ* (FindLaw.com), June 9, 2006

"Will the Precedent Set by the Indictment in a Pentagon Leak Case Spell Trouble for Those Who Leaked Valerie Plame's Identity to the Press?" *Writ* (FindLaw.com), August 15, 2005

"Jailing Judith Miller: Why the Media Shouldn't Be So Quick to Defend Her, and Why a Number of These Defenses Are Troubling," *Writ* (FindLaw.com), July 8, 2005

"The Supreme Court Dismisses the Controversial Consular Rights Case: A Blessing in Disguise for International Law Advocates?" *Writ* (FindLaw.com), June 6, 2005 (co-authored with Howard S. Schiffman)

"The Decision Dismissing the Lawsuit against Vice President Dick Cheney," *Writ* (FindLaw.com), May 17, 2005

"The Supreme Court Considers the Rights of Foreign Citizens Arrested in the United States," *Writ* (FindLaw.com), March 21, 2005 (co-authored with Howard S. Schiffman)

Presentations and Addresses

In addition to the presentations listed below, I have made close to one hundred media appearances, book events, and educational presentations (beyond lectures for my own classes)

"Mass Shootings: What We Know, What We Don't Know, and Why It All Matters," keynote presentation to be delivered at the Columbia University Center for Injury Science and Prevention Annual Symposium, virtual meeting, May 2020

"K-12 School Environmental Responses to Gun Violence: Gaps in the Evidence," paper presented at Society for Advancement of Violence and Injury Research Annual Meeting, virtual meeting, April 2020 (co-authored with Sonali Rajan, Joseph Erardi, Justin Heinze, and Charles Branas)

"Active School Shootings," Post-Performance Talkback following Presentation of *17 Minutes*, Barrow Theater, New York, January 29, 2020 (co-delivered with Sonali Rajan)

"Addressing Mass Shootings in Public Health: Lessons from Security Studies," Teachers College, Columbia University, November 25, 2019

"Rampage Nation: Securing America from Mass Shootings," Swarthmore College, October 24, 2019

"Rampage Nation: Securing America from Mass Shootings," University of Pennsylvania, February 9, 2018

"Treating Mass Shootings for What They Really Are: Threats to American Security," Framingham State University, October 26, 2017

"Book Talk: Rampage Nation," Teachers College, Columbia University, October 17, 2017

Participant, Roundtable on Assault Weapons and Large-Capacity Magazines, Annual Conference on Second Amendment Litigation and Jurisprudence, Law Center to Prevent Gun Violence, October 16, 2017

"Protecting the Homeland: Tracking Patterns and Trends in Domestic Terrorism," address delivered to the annual meeting of the National Joint Terrorism Task Force, June 2015

"Sovereign Accountability: Creating a Better World by Going after Bad Political Leaders," address delivered to the Daniel H. Inouye Asia-Pacific Center for Security Studies, November 2013

"Game Theory and Political Theater," address delivered at the School of Drama, State Theater of Northern Greece, May 2012

"Holding Heads of State Accountable for Gross Human Rights Abuses and Acts of Aggression," presentation delivered at the Michael and Kitty Dukakis Center for Public and Humanitarian Service, American College of Thessaloniki, May 2012

Chairperson, Cultural Enrichment Seminar, Fulbright Foundation – Southern Europe, April 2012

Participant, Roundtable on "Did the Intertubes Topple Hosni?" Zócalo Public Square, February 2011

Chairperson, Panel on Democracy and Terrorism, annual meeting of the International Security Studies Section of the International Studies Association, October 2010

"Trends in Terrorism Within the American Homeland Since 9/11," paper to be presented at the annual meeting of the International Security Studies Section of the International Studies Association, October 2010

Panelist, "In and Of the World," Panel on Global Affairs in the 21st Century, Center for Global Affairs, New York University, March 2010

Moderator, "Primacy, Perils, and Players: What Does the Future Hold for American Security?" Panel of Faculty Symposium on Global Challenges Facing the Obama Administration, Center for Global Affairs, New York University, March 2009

"Europe's Broken Border: The Problem of Illegal Immigration, Smuggling and Trafficking via Greece and the Implications for Western Security," presentation delivered at the Center for Global Affairs, New York University, February 2009

"The Dangers of Democratization: Implications for Southeast Europe," address delivered at the University of Athens, Athens, Greece, May 2008

Participant, "U.S. National Intelligence: The Iran National Intelligence Estimate," Council on Foreign Relations, New York, April 2008

Moderator, First Friday Lunch Series, "Intelligence in the Post-9/11 World: An Off-the-Record Conversation with Dr. Joseph Helman (U.S. Senior National Intelligence Service)," Center for Global Affairs, New York University, March 2008

Participant, "U.S. National Intelligence: Progress and Challenges," Council on Foreign Relations, New York, March 2008

Moderator, First Friday Lunch Series, "Public Diplomacy: The Steel Backbone of America's Soft Power: An Off-the-Record Conversation with Dr. Judith Baroody (U.S. Department of State)," Center for Global Affairs, New York University, October 2007

"The Problems and Challenges of Democratization: Implications for Latin America," presentation delivered at the Argentinean Center for the Study of Strategic and International

Relations Third Conference on the International Relations of South America (IBERAM III), Buenos Aires, Argentina, September 2007

"The Importance of Higher Education to the Hellenic-American Community," keynote address to the annual Pan-Icarian Youth Convention, New York, May 2007

Moderator, First Friday Lunch Series, Panel Spotlighting Graduate Theses and Capstone Projects, Center for Global Affairs, New York University, April 2007

Convener, U.S. Department of State Foreign Officials Delegation Working Group on the Kurds and Turkey, March 2007

"Soft Power and International Law in a Globalizing Latin America," round-table presentation delivered at the Argentinean Center for the Study of Strategic and International Relations Twelfth Conference of Students and Graduates of International Relations in the Southern Cone (CONOSUR XII), Buenos Aires, Argentina, November 2006

Moderator, First Friday Lunch Series, "From Berkeley to Baghdad to the Beltway: An Off-the-Record Conversation with Dr. Catherine Dale (U.S. Department of Defense)," Center for Global Affairs, New York University, November 2006

Chairperson, Roundtable on Presidential Privilege and Power Reconsidered in a Post-9/11 Era, American Political Science Association Annual Meeting, September 2006

"Constitutional Controversies," round-table presentation delivered at City University of New York-College of Staten Island, September 2005

"The Future of the Cyprus Conflict," address to be delivered at City University of New York College of Staten Island, April 2005

"The 2004 Election and the Future of American Foreign Policy," address delivered at City University of New York College of Staten Island, December 2004

"One Culprit for the 9/11 Attacks: Political Realism," address delivered at City University of New York-College of Staten Island, September 2004

"Were the Eagle and the Phoenix Birds of a Feather? The United States and the 1967 Greek Coup," address delivered at London School of Economics, November 2003

"Beware of Europeans Bearing Gifts? Cypriot Accession to the EU and the Prospects for Peace," address delivered at Conference on Mediterranean Stability, Security, and Cooperation, Austrian Defense Ministry, Vienna, Austria, October 2003

Co-Chair, Panel on Ideational and Strategic Aspects of Greek International Relations, London School of Economics Symposium on Modern Greece, London, June 2003

"Greece between Old and New Europe," address delivered at London School of Economics, June 2003

Co-Chair, Panel on International Regimes and Genocide, International Association of Genocide Scholars Annual Meeting, Galway, Ireland, June 2003

"American Cooperation with International Tribunals," paper presented at the International Association of Genocide Scholars Annual Meeting, Galway, Ireland, June 2003

"Is the Unipolar Moment Fading?" address delivered at London School of Economics, May 2003

"Cyprus, Turkey, and the European Union," address delivered at London School of Economics, February 2003

"Bridging the Greek-Turkish Divide," address delivered at Northwestern University, May 1998

"The CNN Effect: Fact or Fiction?" address delivered at Catholic University, April 1998

"The Current Political Situation in Cyprus," address delivered at AMIDEAST, July 1997

"Making the Peace Happen in Cyprus," presentation delivered at the U.S. Institute of Peace in July 1997

"The CNN Effect: The Impact of the Media during Diplomatic Crises and Complex Emergencies," a series of presentations delivered in Cyprus (including at Ledra Palace), May 1997

"Are Policy-Makers Misreading the Public? American Public Opinion on the United Nations," paper presented at the International Studies Association Annual Meeting, Toronto, Canada, March 1997 (with Shoon Murray)

"The Political and Diplomatic Consequences of Greece's Recent National Elections," presentation delivered at the National Foreign Affairs Training Center, Arlington, VA, September 1996

"Prospects for Greek-Turkish Reconciliation," presentation delivered at the U.S. Institute of Peace Conference on Greek-Turkish Relations, Washington, D.C., June, 1996 (with Theodore A. Couloumbis)

"Greek-Turkish Reconciliation," paper presented at the Karamanlis Foundation and Fletcher School of Diplomacy Joint Conference on The Greek-U.S. Relationship and the Future of Southeastern Europe, Washington, D.C., May, 1996 (with Theodore A. Couloumbis)

"The Path toward Peace in the Eastern Mediterranean and the Balkans in the Post-Cold War Era," paper presented at the International Studies Association Annual Meeting, San Diego, CA, March, 1996 (with Theodore A. Couloumbis)

"Peace Operations: The View from the Public," paper presented at the International Studies Association Annual Meeting, San Diego, CA, March, 1996

Chairperson, Roundtable on Peace Operations, International Security Section of the International Studies Association Annual Meeting, Rosslyn, VA, October, 1995

"Chaos and Complexity in International Politics: Epistemological Implications," paper presented at the International Studies Association Annual Meeting, Washington, D.C., March, 1994

"At What Cost? American Mass Public Opinion and the Use of Force Abroad," paper presented at the International Studies Association Annual Meeting, Washington, D.C., March, 1994 (with Daniel B. O'Connor)

"American Mass Public Opinion and the Use of Force Abroad," presentation delivered at the United States Institute of Peace, Washington, D.C., February, 1994 (with Daniel B. O'Connor)

"For a Good Cause: American Mass Public Opinion and the Use of Force Abroad," paper presented at the Annual Meeting of the Foreign Policy Analysis/Midwest Section of the International Studies Association, Chicago, IL, October, 1993 (with Daniel B. O'Connor)

"American International Narcotics Control Policy: A Critical Evaluation," presentation delivered at the American University Drug Policy Forum, Washington, D.C., November, 1991

"American National Security in the Post-Cold War Era: Social Defense, the War on Drugs, and the Department of Justice," paper presented at the Association of Professional Schools of International Affairs Conference, Denver, CO, February, 1991

Referee for Grant Organizations, Peer-Reviewed Journals, and Book Publishers

National Science Foundation, Division of Social and Economic Sciences

American Journal of Preventive Medicine

American Journal of Public Health

American Political Science Review

British Medical Journal (BMJ)

Comparative Political Studies

Injury Epidemiology

Journal of Public and International Affairs

Millennium

Political Behavior

Presidential Studies Quarterly

Victims & Offenders

Violence and Victims

Brill Publishers

Johns Hopkins University Press

Routledge

Service to University, Profession, and Community

Participant, Annual Meeting of the Research Society for the Prevention of Firearm-Related Harms, 2023

Participant, Minnesota Chiefs of Police Association, Survey of Measures to Reduce Gun Violence, 2023

Member, Regional Gun Violence Research Consortium, Nelson A. Rockefeller Institute of Government, State University of New York, 2022-

Founding Member, Scientific Union for the Reduction of Gun Violence (SURGE), Columbia University, 2019-

Contributing Lecturer, Johns Hopkins University, Massive Open Online Course on Evidence-Based Gun Violence Research, Funded by David and Lucile Packard Foundation, 2019

Member, Group of Gun Violence Experts, *New York Times* Upshot Survey, 2017

Member, Guns on Campus Assessment Group, Johns Hopkins University and Association of American Universities, 2016

Member, Fulbright Selection Committee, Fulbright Foundation, Athens, Greece, 2012

Faculty Advisor, Global Affairs Graduate Society, New York University, 2009-2011

Founder and Coordinator, Graduate Transnational Security Studies, Center for Global Affairs, New York University, 2009-2011

Organizer, Annual Faculty Symposium, Center for Global Affairs, New York University, 2009

Member, Faculty Search Committees, Center for Global Affairs, New York University, 2007-2009

Member, Graduate Program Director Search Committee, Center for Global Affairs, New York University, 2008-2009

Developer, Transnational Security Studies, Center for Global Affairs, New York University, 2007-2009

Participant, Council on Foreign Relations Special Series on National Intelligence, New York, 2008

Member, Graduate Certificate Curriculum Committee, Center for Global Affairs, New York University, 2008

Member, Faculty Affairs Committee, New York University, 2006-2008

Member, Curriculum Review Committee, Center for Global Affairs, New York University, 2006-2008

Member, Overseas Study Committee, Center for Global Affairs, New York University, 2006-2007

Participant, New York Academic Delegation to Israel, Sponsored by American-Israel Friendship League, 2006

Member, Science, Letters, and Society Curriculum Committee, City University of New York-College of Staten Island, 2006

Member, Graduate Studies Committee, City University of New York-College of Staten Island, 2005-2006

Member, Summer Research Grant Selection Committee, City University of New York-College of Staten Island, 2005

Director, College of Staten Island Association, 2004-2005

Member of Investment Committee, College of Staten Island Association, 2004-2005

Member of Insurance Committee, College of Staten Island Association, 2004-2005

Member, International Studies Advisory Committee, City University of New York-College of Staten Island, 2004-2006

Faculty Advisor, Pi Sigma Alpha National Political Science Honor Society, City University of New York-College of Staten Island, 2004-2006

Participant, World on Wednesday Seminar Series, City University of New York-College of Staten Island, 2004-2005

Participant, American Democracy Project, City University of New York-College of Staten Island, 2004

Participant, Philosophy Forum, City University of New York-College of Staten Island, 2004

Commencement Liaison, City University of New York-College of Staten Island, 2004

Member of Scholarship Committee, Foundation of Pan-Icarian Brotherhood, 2003-2005, 2009

Scholarship Chairman, Foundation of Pan-Icarian Brotherhood, 2001-2003

Faculty Advisor to the Kosmos Hellenic Society, George Washington University, 2001-2002

Member of University of Pennsylvania's Alumni Application Screening Committee, 2000-2002

Participant in U.S. Department of State's International Speakers Program, 1997

Participant in Yale University's United Nations Project, 1996-1997

Member of Editorial Advisory Board, *Journal of Public and International Affairs*, Woodrow Wilson School of Public and International Affairs, Princeton University, 1991-1993

Voting Graduate Student Member, School of International Service Rank and Tenure Committee, American University, 1990-1992

Member of School of International Service Graduate Student Council, American University, 1990-1992

Teaching Assistant for the Several Courses (World Politics, Beyond Sovereignty, Between Peace and War, Soviet-American Security Relations, and Organizational Theory) at School of International Service Graduate Student Council, American University, 1989-1992

Representative for American University at the Annual Meeting of the Association of Professional Schools of International Affairs, Denver, Colorado, 1991

Expert Witness Service

State of New York, 2024-

Town of Superior, Colorado, 2023-

City of Boulder, Colorado, 2023-

City of Louisville, Colorado, 2023-

County of Boulder, Colorado, 2023-

State of Connecticut, 2023-

State of Hawaii, 2023-

State of Illinois, 2023-

State of Massachusetts, 2023-

State of New Jersey, 2023-

State of Oregon, 2023-

City of Highland Park, Illinois, 2022-

County of Cook, Illinois, 2022-

State of Washington, 2022-

Government of Canada, 2021-2022

Plaintiffs, *Ward et al. v. Academy Sports + Outdoor*, District Court Bexar County, Texas, 224th Judicial District, Cause Number 2017CI23341, Bexar County, TX, 2019

State of California, 2017-

State of Colorado, 2016-2017, 2022-

Affiliations, Associations, and Organizations (Past and Present)

Academy of Political Science (APS)

American Political Science Association (APSA)

Anderson Society of American University

Carnegie Council Global Ethics Network

Columbia University Scientific Union for the Reduction of Gun Violence (SURGE)

Firearm Safety among Children and Teens (FACTS)

International Political Science Association (IPSA)

International Studies Association (ISA)

New York Screenwriters Collective

Pan-Icarian Brotherhood

Pi Sigma Alpha

Regional Gun Violence Research Consortium

Research Society for the Prevention of Firearm-Related Harms

Society for Advancement of Violence and Injury Research (SAVIR)

United States Department of State Alumni Network

United States Institute of Peace Alumni Association

University of Pennsylvania Alumni Association

Grants, Honors, and Awards

Co-Investigator, A Nationwide Case-Control Study of Firearm Violence Prevention Tactics and Policies in K-12 School, National Institutes of Health, 2021-2024 (Branas and Rajan MPIs)

Senior Fulbright Fellowship, 2012

Professional Staff Congress Research Grantee, City University of New York, 2004-2005

Research Assistance Award (Two Times), City University of New York-College of Staten Island, 2004

Summer Research Fellowship, City University of New York-College of Staten Island, 2004

European Institute Associate Fellowship, London School of Economics, 2003-2004

Hellenic Observatory Defense Analysis Research Fellowship, London School of Economics, 2002-2003

United States Institute of Peace Certificate of Meritorious Service, 1996

National Science Foundation Dissertation Research Grant, 1995 (declined)

Alexander George Award for Best Graduate Student Paper, Runner-Up, Foreign Policy Analysis Section, International Studies Association, 1994

Dean's Scholar Fellowship, School of International Service, American University, 1989-1992

Graduate Research and Teaching Assistantship, School of International Service, American University, 1989-1992

American Hellenic Educational Progressive Association (AHEPA) College Scholarship, 1986

Political Science Student of the Year, Wilkes-Barre Area School District, 1986

EXHIBIT B

DETACHABLE MAGAZINE REPORT

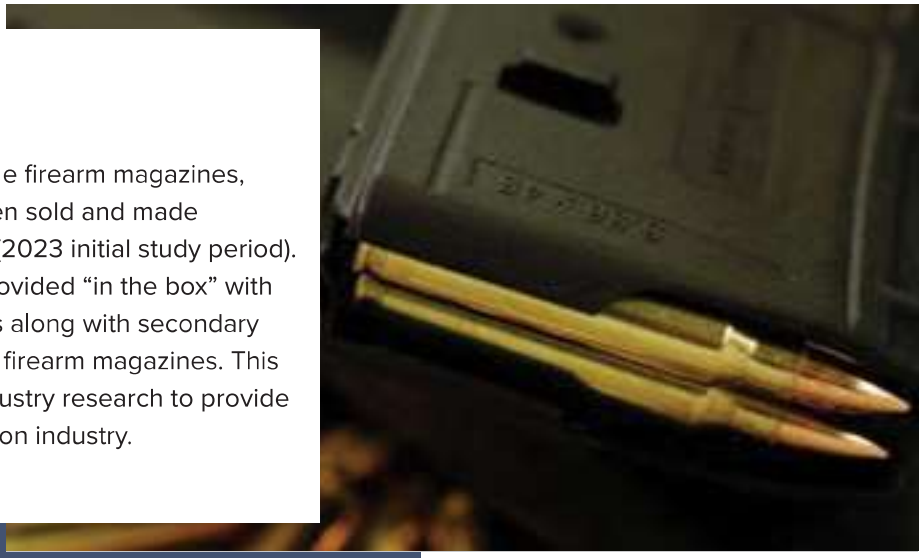
1990 - 2021

nssf.org/research

NSSF
The Firearm Industry Trade Association

NSSF® DETACHABLE MAGAZINE REPORT
(1990 – 2021)

NSSF
The Firearm Industry Trade Association



PURPOSE

Estimate the number of detachable firearm magazines, segmented by capacity, that have been sold and made available using the latest information (2023 initial study period). Estimate the number of magazines provided "in the box" with firearms made available to consumers along with secondary market / direct consumer purchase of firearm magazines. This is done as part of NSSF's ongoing industry research to provide insights into the firearm and ammunition industry.

METHODOLOGY

Utilize Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturers Export Reports (AFMER) to identify firearm manufacturers and corresponding firearm manufacturing activity of pistols and rifles. ATF AFMER reporting is segmented by Pistol, Revolver, Rifle, and Shotgun categories of manufacturing and export. Identify and remove firearm manufacturers that do not produce pistols and rifles that accept detachable magazines such as derringers, single shot pistols, and fixed magazine rifles. Master totals were created for the top 15 pistol manufacturers (~80 percent of pistols) and top 15 rifle manufacturers (~60 percent of rifles) produced in the 2021 ATF AFMER. Independent research and direct survey of firearm and magazine manufacturers yielded information on how many magazines, and their capacity, were provided with each firearm and made available to the U.S. consumer market from 1990 to 2021 through wholesalers, retailers, and sold directly to consumers. If historical information was not available, a value of one magazine per pistol and rifle was used for the list of top manufacturers. Organizing the data collected from top pistol and rifle manufacturers, industry averages of magazines and capacity were applied to all other pistol and rifle manufacturers reported by ATF AFMER for the study period (1990-2021). Consumer market totals were taken directly from participating magazine manufacturers with no adjustment. Totals of each segment were rounded to the closest thousand.

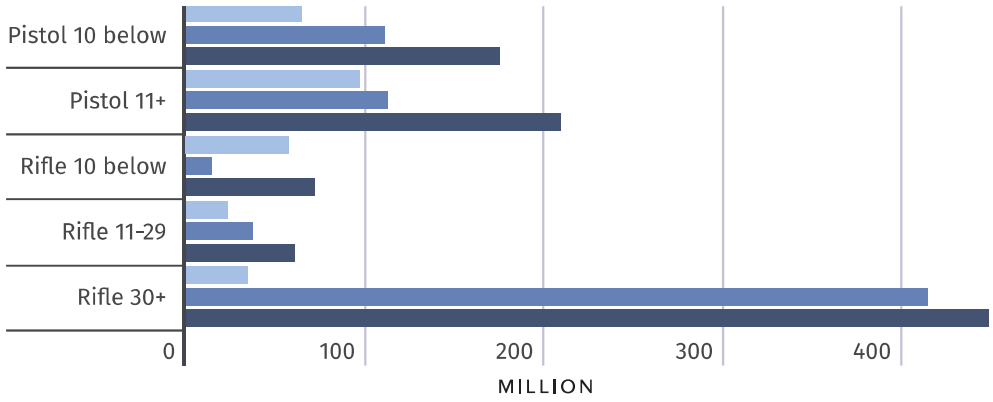
RESULTS

Independent research and direct survey of firearm and magazine manufacturers yielded industry averages for pistol and rifle magazines that come "in the box." Pistol magazines had an industry average of 2.1 magazines per firearm from the manufacturer with 44 percent being 10 and below capacity. Rifle magazines had an industry average of 1.8 magazines per firearm from the manufacturer with half being 10 and below capacity, 20 percent being 11-29 round capacity, and 30 percent being 30+ round capacity.

Of the firearm magazines estimated in this study, 29 percent originate from detachable magazines provided "in the box" with each newly manufactured firearm and 71 percent of detachable magazines were distributed to the consumer market as an "aftermarket"

product. An estimated 963 million magazines were produced and entered the commercial market between 1990 and 2021. Of the estimated 963 million magazines, approximately 74 percent, or 717 million magazines, have a capacity of 11+ rounds. A majority of the 11+ round capacity magazines are rifle magazines. About 46 percent of the magazines estimated in this study are rifle magazines with 30+ round capacity. The percentage of detachable magazines at 11+ capacity is about 55 percent of total pistol magazines. The amount of 10 and below capacity rifle magazines supplied from the manufacturer is over one and a half times the amount of 30+ capacity rifle magazines. The consumer market totals of rifle magazines show 30+ capacity magazines, over 413 million, are over thirty times the amount available than 10 and below capacity rifle magazines, about 13 million.

Firearm Magazine Estimate 1990 – 2021					
	Pistol 10 below	**Pistol 11+**	**Rifle 10 below**	**Rifle 11-29**	**Rifle 30+**
Manufacturer Total	64,099,000	96,148,000	57,362,000	22,945,000	34,417,000
Consumer Market Total	110,694,000	112,997,000	13,717,000	37,441,000	413,952,000
Manufacturer and Consumer Totals	174,793,000	209,145,000	71,079,000	60,386,000	448,369,000
Grand Total: 963,772,000					



LIMITATIONS

Not all magazine manufacturers that support and supply firearm manufacturers and the consumer market responded to the survey/provided data; therefore, the results are a conservative estimate. Not all segments of detachable magazines could be counted due to lack of public information or availability of records. For example, detachable shotgun magazines are prevalent in certain shooting sports and tactical applications but were not counted. Military and law enforcement sales were not counted. This analysis did not account for breakage or magazines that were destroyed/discarded as no data exists. No reliable data exists prior to 1990 to estimate historic detachable magazines that may still be available for sale or in working condition. This is due to lack of ATF AFMER reporting prior to 1990. This study does not claim all the magazines estimated in this study are owned by Americans; these are both magazines estimated to be in circulation and made available for sale at some point from 1990 to 2021.

DISCUSSION

The popularity of small "conceal carry" pistols highly influenced the distribution of pistol magazines in most recent years, but following trends in manufacturing, many of these pistols are being updated with higher capacity magazines as designs are updated. Magazine-fed semiautomatic pistols and rifles are becoming increasingly popular. Based on magazines alone, 11+ round capacity, market share of these firearms in the United States should be expected hold pace with historic trends.[1] [2]

A recent study of the general population within the United States identified that over 1,300 firearm owners provided more insight to magazine ownership. Results suggest that more than a third (36.3 percent) of the U.S. population are currently firearm owners.[3] Those identified as firearm owners were asked to share details about their detachable magazine ownership. More than half (53.2 percent) of firearm owners reported owning a detachable magazine for a handgun, and nearly a third (32.7 percent) reported owning a detachable magazine for a rifle. Nearly a third (35.9 percent) of firearm owners reported owning a detachable handgun magazine with a capacity of 11 or more rounds, while nearly a quarter (24.3 percent) of firearm owners reported owning a detachable rifle magazine with a capacity of 11 or more rounds. Overall, 43.3 percent of firearm owners reported owning a detachable magazine with a capacity of 11 or more rounds. These findings indicate that approximately 8.9 percent of the U.S. population owns a magazine holding 11 or more rounds.[4]

According to a recent NSSF study, Modern Sporting Rifle (MSR) Comprehensive Consumer Report 2022, magazines were one of the most common accessories purchased among the 2,185 usable responses. "Over half (52%) of MSR owners stated the detachable magazine capacity of their MSR is 30 rounds. When asked why they chose their respective capacity, most frequent responses were related to popularity / standard and being readily available."[5] The latest estimate of MSRs produced between 1990–2021 is over 28 million[6], making aftermarket magazines for these firearms abundant in the United States, where such capacity magazines are not banned[7]. These rifle magazines, like all categories of magazines in this study, are those that are provided "in the box" from the manufacturer and made available for sale. The proportion of owned magazines versus magazines available for sale is currently unattainable.

CONCLUSION

The findings in this report give some insight to the volume and capacity of detachable firearm magazines in the United States for the study period. A more comprehensive estimate would be attainable if participation from firearm and magazine manufacturers increased in future updates. Consumer preferences of 11+ capacity magazines are reflected in the manufacturing activity of the firearm industry. Changes in legislation outlawing or granting access to these magazines may change overall market proportions but the preference to have more ammunition available is clear.

---

[1] Association, N. R. (n.d.). 33 new concealed-carry guns for 2018. An Official Journal Of The NRA. https://www.shootingillustrated.com/content/33-new-concealed-carry-guns-for-2018/

[2] Association, N. R. (n.d.-a). 10 popular concealed carry guns. An Official Journal Of The NRA. https://www.shootingillustrated.com/content/10-popular-concealed-carry-guns/

[3] NSSF 2022 Magazine Capacity Study.

[4] Id.

[5] NSSF Modern Sporting Rifle Comprehensive Consumer Report 2022.

[6] (2024, January 11). NSSF releases most recent firearm production figures. NSSF. https://www.nssf.org/articles/nssf-releases-most-recent-firearm-production-figures-2024/#:~:text=Data%20indicates%20that%2028%2C144%2C000%20Modern,24.4%20million%20to%2028.1%20million.

[7] Cal. Penal Code § 16350, 16740, 16890, 32310-32450., Colo. Rev. Stat. §§ 18-12-301, 302, 303., Conn. Gen. Stat. §§ 53-202w, 53-202q., Del. Code Ann. Tit. 11, § 1469(a)., D.C. Code Ann. §§ 7-2506.01(b); 7-2507.06(a)(4)., Haw. Rev. Stat. Ann. § 134–8(c)., 720 ILCS 5/24-1.10 (enacted January 10, 2023 by 2021 IL HB 5471., Md. Code Ann., Crim. Law § 4-305., Mass. Gen. Laws ch. 140, §§ 121, 131M., N.J. Stat. Ann. §§ 2C:39-1(y), 2C:39-3(j), 2C:39-9(h)., N.Y. Penal Law §§ 265.00(23), 265.02(8), 265.10, 265.11, 265.20(7-f), 265.36-265.37., See 2022 Oregon Ballot Measure 114, SEC. 11., R.I. Gen. Laws §§ 11-47.1-2, 11-47.1-3(a)., Vt. Stat. Ann. tit. 13, § 4021 (enacted by 2017 VT S 55, Sec. 8)., RCW 9.41.370.

NSSF
The Firearm Industry Trade Association

EXHIBIT C

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Clinton B. Monfort - S.B.N. 255609
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Attorneys for Plaintiffs

IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

LEONARD FYOCK, SCOTT HOCHSTETLER WILLIAM DOUGLAS, DAVID PEARSON, BRAD SEIFERS, and ROD SWANSON,

Plaintiffs

vs.

THE CITY OF SUNNYVALE, THE MAYOR OF SUNNYVALE, ANTHONY SPITALERI in his official capacity, THE CHIEF OF THE SUNNYVALE DEPARTMENT OF PUBLIC SAFETY, FRANK GRGURINA, in his official capacity, and DOES 1-10,

Defendants.

CASE NO: CV13-05807 RMW

DECLARATION OF JAMES CURCURUTO IN SUPPORT OF MOTION FOR PRELIMINARY INJUNCTION

DECLARATION OF JAMES CURCURUTO

1. I, James Curcuruto, am not a party in the above-titled action. I am over the age of 18, have personal knowledge of the facts and events referred to in this Declaration, and am competent to testify to the matters stated below.

2. I am the Director, Industry Research and Analysis, at the National Shooting Sports Foundation ("NSSF"). The NSSF is the trade association for the firearms industry. Its mission is to promote, protect and preserve hunting and the shooting sports. Formed in 1961, NSSF has a membership of 10,000 manufacturers, distributors, firearms retailers, shooting ranges, sportsmen's organizations and publishers.

3. In my position as Director, Industry Research and Analysis, I am responsible for most of the research activities at NSSF, and I direct the activities of an internal research coordinator and outside companies retained to conduct research and gather market and consumer information useful to NSSF members.

4. Many NSSF members manufacture, distribute and/or sell firearms and shooting and hunting-related goods and services, and as is usual and customary for trade associations, the NSSF collects and disseminates industry-specific, non-sensitive data reflecting consumer preferences, market trends and other information for use in their business decisions. Among the shooting and hunting-related goods and services manufactured, distributed and sold by NSSF members are ammunition magazines.[1] Research conducted by the NSSF and under my direction demonstrates that detachable ammunition magazines are very popular

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[1] A "magazine" is a receptacle for a firearm that holds a plurality of cartridges or shells under spring pressure preparatory for feeding into the chamber. http://saami.org/glossary/display.cfm?letter=M, Glossary of Terms, Sporting Arms and Ammunition Manufacturers' Institute (SAAMI). While magazines take many forms – box, drum, rotary, tubular, etc. and may be fixed or removable – from the materials I considered and firearms industry professionals I consulted, the figures discussed in this declaration generally (if not exclusively) concern detachable, box magazines.

and are commonly owned by millions of persons in the United States for a variety of lawful purposes, including, but not limited to, recreational and competitive target shooting, home defense, collecting and hunting.

5. In addition to ammunition magazines accompanying firearms that utilize them at the time of sale, such magazines are also widely available for sale as a stand-alone item to individuals who need a replacement, different-capacity, and/or additional magazine.

6. I am not aware of any singular public source providing reliable figures identifying exactly how many ammunition magazines are manufactured or imported for sale within the United States each year. There are, however, data available to me from which estimations of the amount of magazines that have been sold to the general population, as well as how many of those have a capacity for ammunition exceeding ten rounds, can be calculated within a reasonable degree of certainty.

7. Using such data, I have, in the normal scope of my duties on behalf of the NSSF, calculated estimations of the total number of magazines possessed by consumers in the United States, as well as how many of those have a standard capacity for ammunition exceeding ten rounds. These estimations are published in the NSSF Magazine Report attached as Exhibit "A."

8. The NSSF Magazine Report estimates that 158 million pistol and rifle magazines were in the possession of United States consumers between 1990 and 2012. The data supporting the Report further shows magazines capable of holding more than 10 rounds of ammunition accounted for approximately 75 million or approximately 47 percent of all magazines owned.

9. Sources used to compile the NSSF Magazine Report include the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturers and Exports Reports (AFMER), U.S. International Trade Commission (ITC), as well as, opinions of firearms industry professionals. To prepare the NSSF Magazine Report, only the number of pistols and rifles was used

while revolver and shotgun data was excluded as revolvers and the vast majority of shotguns do not utilize magazines.

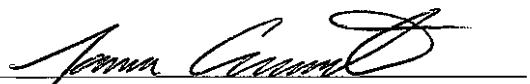
10. The ATF AFMER data provide historical figures for pistols by caliber (i.e., the specific ammunition cartridge for which a firearm is chambered) and rifles produced in the United States for consumer purchase. The ITC data provides historical figures for pistol and rifles imported to and exported from the United States for consumer purchase. The total number of firearms available for consumer purchase 1990 through 2012 was calculated by adding the total U.S-production of firearms with the total firearms imported and then subtracting total firearms exported.

11. The ATF AFMER and ITC data provided estimates of approximately 50 million pistols and 33 million rifles available to United States consumers between 1990 and 2012. Firearms industry professionals with knowledge of the pistol and rifle magazine market then allocated magazines to the totals to complete the data provided in the NSSF Magazine Report .

12. It can be assumed that many more such magazines were manufactured in the United States or imported to the United States for sale in the commercial marketplace both prior to 1990 as well as after 2012.

13. While the figure of 75 million standard capacity magazines holding over 10 rounds in circulation is an estimation based on extrapolation from indirect sources and cannot be confirmed as unequivocally accurate, it is safe to say that whatever the actual number of such magazines in United States consumers' hands is, it is in the tens-of-millions, even under the most conservative estimates.

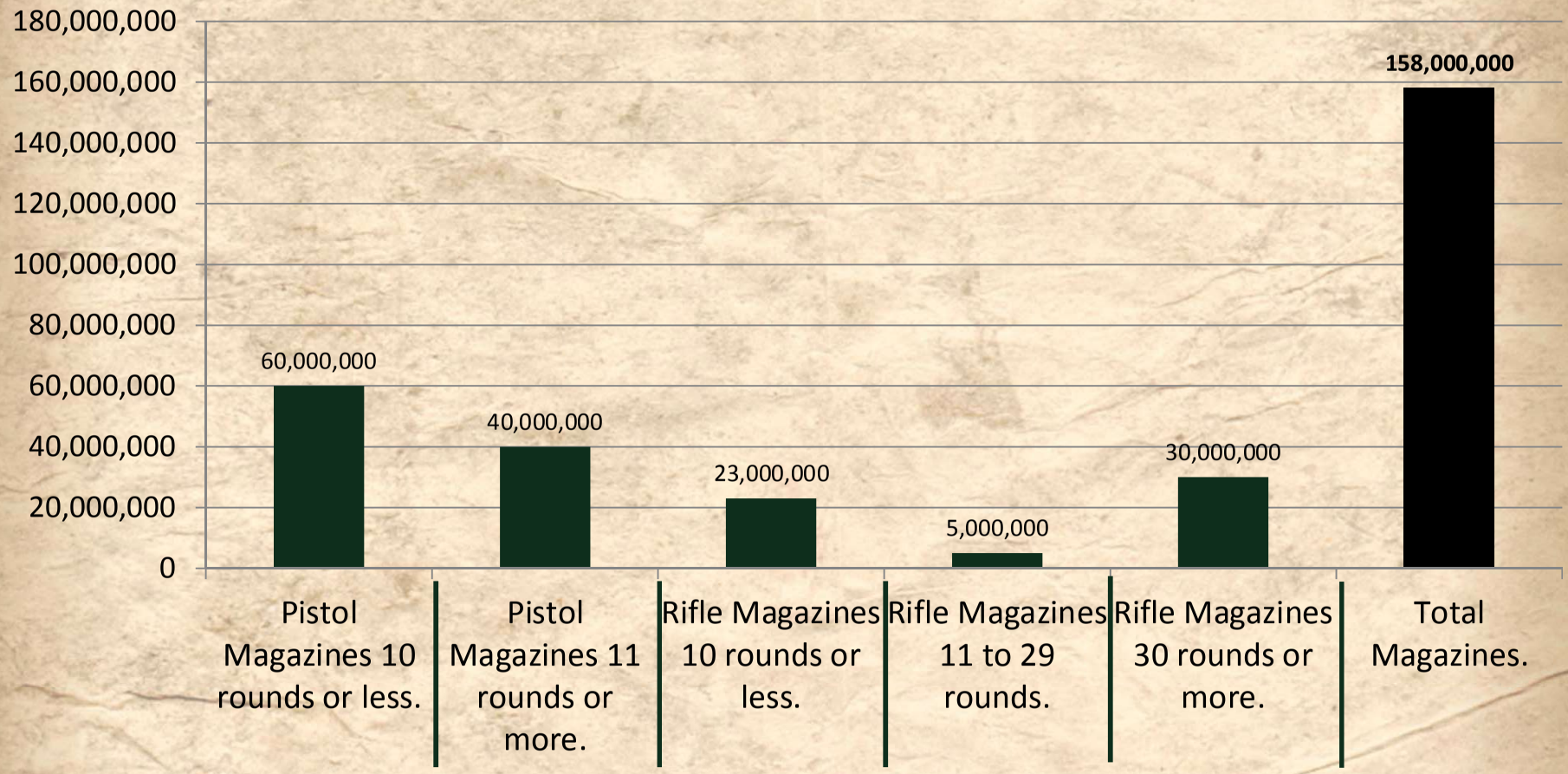
I declare under penalty of perjury that the foregoing is true and correct. Executed within the United States on December 19, 2013.



James Curcuruto

EXHIBIT A

Estimated 158 Million Pistol and Rifle Magazines in U.S. Consumer Possession 1990 – 2012.



Sources: ATF AFMER, US International Trade Commission figures combined wtih NSSF and Firearms Industry estimates.

PROMOTE PROTECT PRESERVE

National SHOOTING SPORTS Foundation

Case 3:23-cv-00209-SPM Document 185-7 Filed 05/10/24 Page 92 of 129 Page ID #5578

EXHIBIT D

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Douglas A. Applegate (SBN 142000)
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San Francisco, California 94111
Phone: (415) 979-0500
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Raymond M. DiGuiseppe (SBN 228457)
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Attorneys for Plaintiffs
WILLIAM WIESE, JEREMIAH MORRIS, LANCE COWLEY, SHERMAN MACASTON, ADAM RICHARDS, CLIFFORD FLORES, L.Q. DANG, FRANK FEDEREAU, ALAN NORMANDY, TODD NIELSEN, THE CALGUNS FOUNDATION, FIREARMS POLICY COALITION, FIREARMS POLICY FOUNDATION, and SECOND AMENDMENT FOUNDATION

UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF CALIFORNIA

WILLIAM WIESE, et al.,

Plaintiffs,

vs.

XAVIER BECERRA, in his official capacity as Attorney General of California, et al.,

Defendants.

Case No. 2:17-cv-00903-WBS-KJN

DECLARATION OF JAMES CURCURUTO IN SUPPORT OF PLAINTIFFS' MOTION FOR TEMPORARY RESTRAINING ORDER AND ISSUANCE OF PRELIMINARY INJUNCTION

[FRCP 65; E.D. L.R. 231]

Date: TBD
Time: TBD
Courtroom 5
Judge: Hon. William B. Shubb

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SEILER EPSTEIN ZIEGLER & APPLEGATE LLP
Attorneys at Law

DEFENDANTS' TRIAL EXHIBIT
692
No. 2:22-cv-01815-IM

SEILER EPSTEIN ZIEGLER & APPLEGATE LLP
Attorneys at Law

DECLARATION OF JAMES CURCURUTO

1. I, James Curcuruto, am not a party in the above-titled action. I am over the age of 18, have personal knowledge of the facts and events referred to in this Declaration, and am competent to testify to the matters stated below.

2. I am the Director, Industry Research and Analysis, at the National Shooting Sports Foundation ("NSSF"). The NSSF is the trade association for the firearms industry. Its mission is to promote, protect and preserve hunting and the shooting sports. Formed in 1961, NSSF has a membership of 12,000 manufacturers, distributors, firearms retailers, shooting ranges, sportsmen's organizations and publishers.

3. In my position as Director, Industry Research and Analysis, I am responsible for most of the industry research activities at NSSF, and I direct the activities of an internal research coordinator as well as outside companies retained to conduct research and gather market and consumer information useful to NSSF members.

4. Many NSSF members manufacture, distribute and/or sell firearms and shooting and hunting-related goods and services, and as is usual and customary for trade associations, the NSSF collects and disseminates industry-specific, non-sensitive data reflecting consumer preferences, market trends and other information for use in their business decisions. Among the shooting and hunting-related goods and services manufactured, distributed and sold by NSSF members are ammunition magazines. Research conducted by the NSSF and under my direction demonstrates that detachable ammunition magazines are very popular and are commonly owned by millions of persons in the United States for a variety of lawful purposes, including, but not limited to, recreational and competitive target shooting, home defense, collecting and hunting.

5. In addition to ammunition magazines accompanying firearms that utilize them at the time of sale, such magazines are also widely available for sale as a standalone item to individuals who need a replacement, different-capacity, and/or additional magazines.

6. I am not aware of any singular public source providing reliable figures identifying

SEILER EPSTEIN ZIEGLER & APPLEGATE LLP
Attorneys at Law

exactly how many ammunition magazines are manufactured or imported for sale within the United States each year. There are, however, data available to me from which estimations of the amount of magazines that have been sold to the general population, as well as how many of those have a capacity for ammunition exceeding ten rounds, can be calculated within a reasonable degree of certainty.

7. Using such data, I have, in the normal scope of my duties on behalf of the NSSF, calculated estimations of the total number of magazines possessed by consumers in the United States, as well as how many of those have a standard capacity for ammunition exceeding ten rounds. These estimations are published in the NSSF® Magazine Chart attached as Exhibit "A."

8. The NSSF® Magazine Chart estimates that 230 million pistol and rifle magazines were in the possession of United States consumers between 1990 and 2015. The data supporting the Chart further shows magazines capable of holding more than 10 rounds of ammunition accounted for approximately 115 million or approximately half of all magazines owned.

9. Sources used to compile the NSSF® Magazine Chart include the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturers and Exports Reports (AFMER), U.S. International Trade Commission (ITC), as well as, opinions of firearms industry professionals. To prepare the NSSF® Magazine Chart, only the number of pistols and rifles were used while revolver and shotgun data was excluded as revolvers and the vast majority of shotguns do not utilize magazines.

10. The ATF AFMER data provide historical figures for pistols by caliber (i.e., the specific ammunition cartridge for which a firearm is chambered) and rifles produced in the United States for consumer purchase. The ITC data provides historical figures for pistol and rifles imported to and exported from the United States for consumer purchase. The total number of firearms available for consumer purchase from 1990 through 2015 was calculated by adding the total U.S.- production of firearms with total firearms imported and then subtracting total firearms exported.

11. The ATF AFMER and ITC data provided estimates of approximately 67.7 million

pistols and 42.6 million rifles capable of holding a magazine were available to United States consumers between 1990 and 2015. Firearms industry professionals with knowledge of the pistol and rifle magazine market then allocated magazines to the totals to complete the data provided in the NSSF® Magazine Chart.

12. It can be assumed that many more such magazines were manufactured in the United States or imported to the United States for sale in the commercial marketplace both prior to 1990 as well as after 2015.

13. While the figure of 115 million magazines with a capacity greater than 10 rounds in circulation is an estimation based on extrapolation from indirect sources and cannot be confirmed as unequivocally accurate, it is safe to say that whatever the actual number of such magazines in United States consumers' hands is, it is in the tens-of millions, even under the most conservative estimates.

I declare under penalty of perjury that the foregoing is true and correct. Executed within the United States on June 9, 2017.

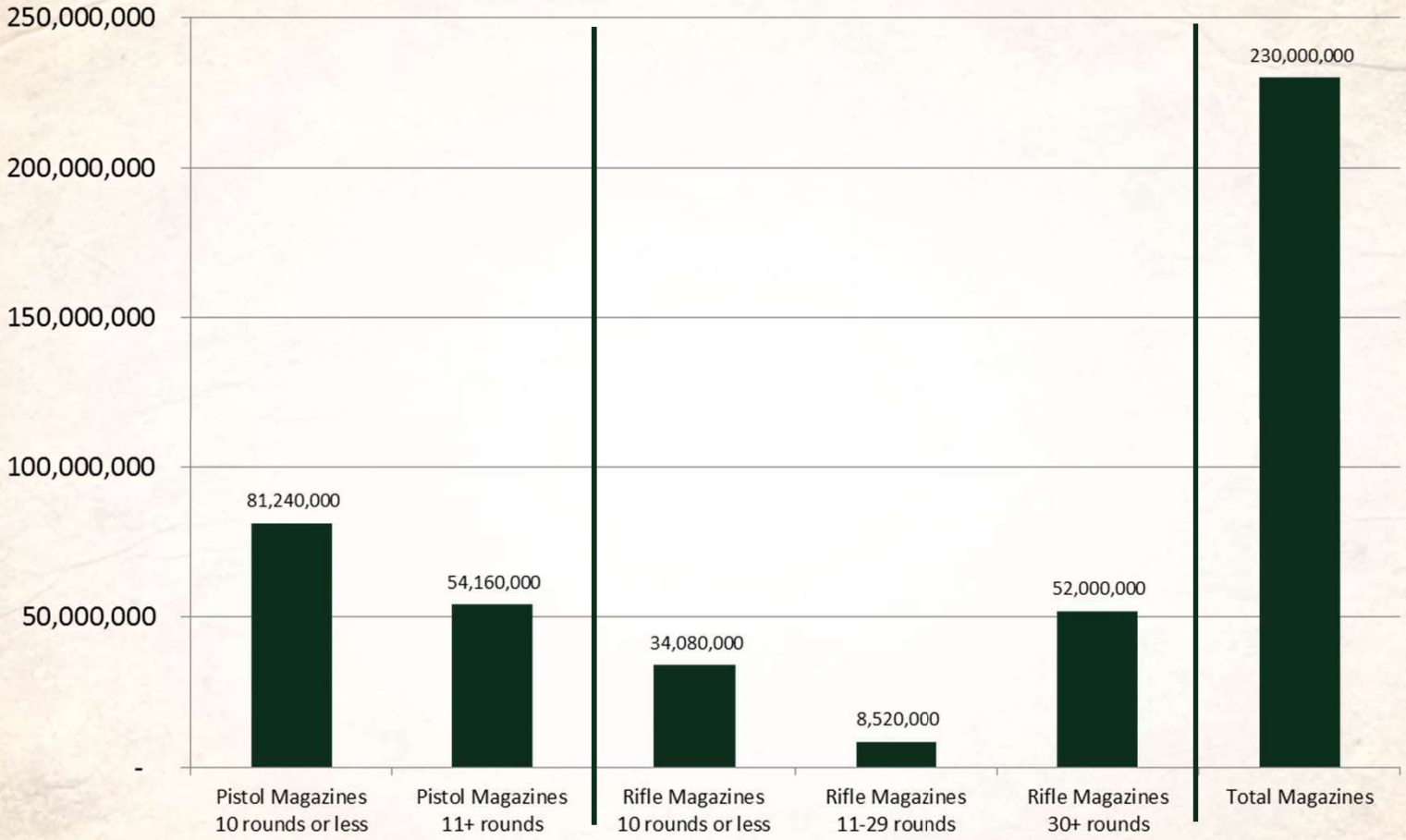
James Curcuruto

SEILER EPSTEIN ZIEGLER & APPLEGATE LLP
Attorneys at Law

EXHIBIT A

NSSF® Magazine Chart

Estimated 230 Million Pistol and Rifle Magazines in U.S. Consumer Possession 1990 - 2015.



Sources: ATF AFMER, US International Trade Commission figures combined with NSSF and firearms industry estimates.

NSSF.ORG

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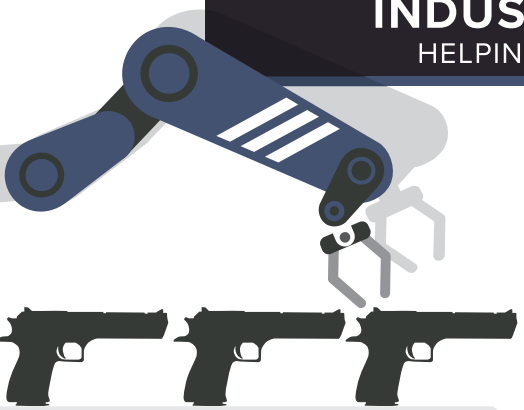
EXHIBIT E

INDUSTRY INTELLIGENCE REPORTS℠
HELPING OUR MEMBERS MAKE INFORMED DECISIONS



FIREARM PRODUCTION
IN THE UNITED STATES
WITH FIREARM IMPORT AND EXPORT DATA

Providing a comprehensive overview of firearm production trends spanning a period of 28 years, this report is based primarily on the data sourced from the Bureau of Alcohol, Tobacco, Firearms and Explosives' (ATF's) Annual Firearms Manufacturing and Export Reports (AFMER). Every effort has been made to provide accurate and updated information so the reader may keep this edition as a reliable resource for trend information. Production data is a leading indicator of industry performance; this is especially true when combined with other valuable sources of information.

KEY FINDINGS

- The average annual production of firearms in the U.S. was 5,400,893 for the last quarter century.
- Total firearm production reported in the 2018 AFMER was 7,948,473 – an increase of 0.6% over 2017 reported figures.
- Long guns totaled 3,441,297 and accounted for 43.3% of total 2018 U.S. firearm production. Of that, rifles totaled 2,905,178 (84.4% of long gun production) and shotguns totaled 536,119 (15.6%).

* **See back for all Key Findings**

This edition includes manufacturing trends for ammunition as sourced from Census Bureau's Annual Survey of Manufacturers (ASM) used for all years that fall between the fifth-year economic census reports. Import and export statistics for firearms compiled from the U.S. International Trade Commission (USITC) are presented in conjunction with the AFMER numbers to provide a more accurate picture of the historical production that has been made available to the U.S. market. These data sources, when used collectively, help to provide an overview of the firearm and ammunition manufacturing industries.

Information on production, imports, exports and other manufacturing variables are only a piece of a more complex puzzle of the firearm industry. Other factors outside of the manufacturing sector, such as the retail sector, the economy and frequently the political climate, must all be taken into consideration. The limitation of the AFMER data is that it reflects historic trends; however, using the data in combination with other reports does provide a more complete picture of the industry. Firearm and ammunition production provide a very significant contribution to the national economy in terms of jobs, wages, and benefits. In addition, capital expenditures on materials (energy, equipment, fuels) help boost local economies.

NSSF®
The Firearm Industry Trade Association

U.S. Firearm Production (1991 – 2018)

Year	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long Guns	Production Total (a)	% Change in Total Production Year over Year
1991	1,378,252	456,966	1,835,218	883,482	828,426	1,711,908	3,547,126	-7.8%
1992	1,669,537	469,413	2,138,950	1,001,708	1,018,204	2,019,912	4,158,862	17.2%
1993	2,093,362	562,292	2,655,654	1,173,694	1,148,939	2,322,633	4,978,287	19.7%
1994	2,004,298	586,450	2,590,748	1,316,607	1,254,924	2,571,531	5,162,279	3.7%
1995	1,195,284	527,664	1,722,948	1,441,120	1,176,958	2,618,078	4,341,026	-15.9%
1996	987,528	498,944	1,486,472	1,424,315	925,732	2,350,047	3,836,519	-11.6%
1997	1,036,077	370,428	1,406,505	1,251,341	915,978	2,167,319	3,573,824	-6.8%
1998	960,365	324,390	1,284,755	1,345,899	1,036,520	2,382,419	3,667,174	2.6%
1999	995,446	335,784	1,331,230	1,569,685	1,106,995	2,676,680	4,007,910	9.3%
2000	962,901	318,960	1,281,861	1,583,042	898,442	2,481,484	3,763,345	-6.1%
2001	626,836	320,143	946,979	1,284,554	679,813	1,964,367	2,911,346	-22.6%
2002	741,514	347,070	1,088,584	1,515,286	741,325	2,256,611	3,345,195	14.9%
2003	811,660	309,364	1,121,024	1,430,324	726,078	2,156,402	3,277,426	-2.0%
2004	728,511	294,099	1,022,610	1,325,138	731,769	2,056,907	3,079,517	-6.0%
2005	803,425	274,205	1,077,630	1,431,372	709,313	2,140,685	3,218,315	4.5%
2006	1,021,260	382,069	1,403,329	1,496,505	714,618	2,211,123	3,614,452	12.3%
2007	1,219,664	391,334	1,610,998	1,610,923	645,231	2,256,154	3,867,152	7.0%
2008	1,387,271	431,753	1,819,024	1,746,139	630,710	2,376,849	4,195,873	8.5%
2009	1,868,268	547,547	2,415,815	2,253,103	752,699	3,005,802	5,421,617	29.2%
2010	2,087,577	558,927	2,646,504	1,830,556	743,378	2,573,934	5,220,438	-3.7%
2011	2,464,255	572,857	3,037,112	2,305,854	862,401	3,168,255	6,205,367	18.9%
2012	3,311,081	667,357	3,978,438	3,109,940	949,010	4,058,950	8,037,388	29.5%
2013	4,314,550	725,282	5,039,832	3,996,673	1,203,072	5,199,745	10,239,577	27.4%
2014	3,602,577	744,047	4,346,624	3,379,009	935,411	4,314,420	8,661,044	-15.4%
2015	3,553,035	884,578	4,437,613	3,701,443	777,273	4,478,716	8,916,329	2.9%
2016	4,705,930	856,288	5,562,218	4,198,692	848,615	5,047,307	10,609,525	19.0%
2017	3,691,006	720,917	4,411,923	2,821,945	667,350	3,489,295	7,901,218	-25.5%
2018	3,842,344	664,832	4,507,176	2,905,178	536,119	3,441,297	7,948,473	0.6%
TOTALS	54,063,814	14,143,960	68,207,774	55,333,527	24,165,303	79,498,830	147,706,604	

Source: Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturing and Export Report (AFMER).
NOTE: Data is in total units and represents the number of firearms "manufactured and disposed of in commerce during the calendar year.
* Totals include firearms sold for export and law enforcement, but not military sales.
(a): Does not include AFMER MISC firearms category which includes items such as: pen guns and starter guns. Also adjusted to exclude/include, as noted:
From 2011 – 2018 several adjustments were made to the data in this chart due to omissions in the AFMER report (i.e.: figures for long guns manufactured by Savage Arms were omitted from the 2017 AFMER), duplication of production due to parts manufactured by machine shops (i.e.: parts reported by machine shop in addtion to being reported by the firearm manufacturer resulting in double-counting) and adjustments to the miscellaneous category (i.e: Aero Precision).

U.S. Firearm Production (1994 – 2018)

ANNUAL AVERAGES

Years	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long Guns	Production Total
25 YR (1994 to 2018)	1,956,907	506,212	**2,463,118**	2,090,986	846,789	**2,937,775**	**5,400,893**
20 YR (1999 to 2018)	2,136,956	517,371	**2,654,326**	2,274,768	792,981	**3,067,749**	**5,722,075**
15 YR (2004 to 2018)	2,573,384	581,073	**3,154,456**	2,540,831	780,465	**3,321,296**	**6,475,752**
10 YR (2009 to 2018)	3,344,062	694,263	**4,038,326**	3,050,239	827,533	**3,877,772**	**7,916,098**
5 YR (2014 to 2018)	3,878,978	774,132	**4,653,111**	3,401,253	752,954	**4,154,207**	**8,807,318**

Source: Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Annual Firearms Manufacturing and Export Report (AFMER). Data is in total units and represents the number of firearms "manufactured and disposed of in commerce during the calendar year." Totals include firearms sold for export and law enforcement, but not military sales.

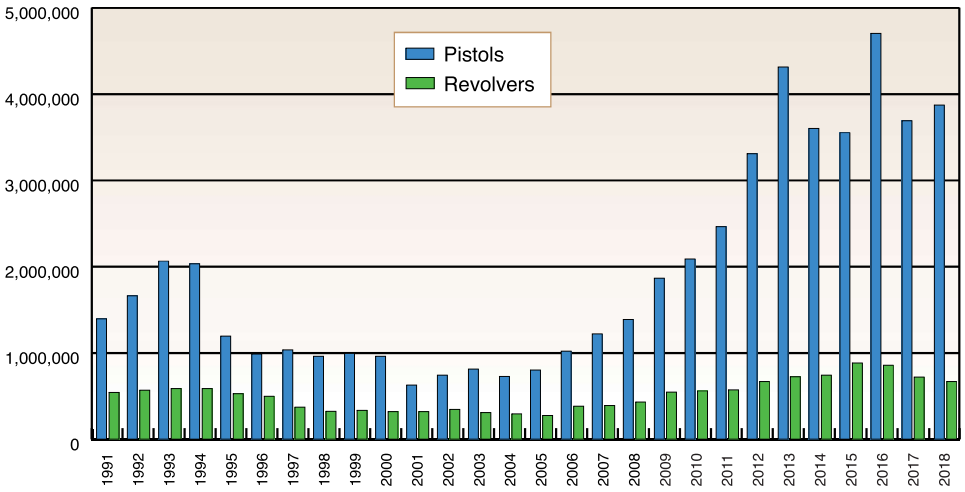
2019 Interim data prepared July 7, 2020. The interim report indicates preliminary data for which the following number of units were reported as manufactured by the manufacturer. This interim AFMER report represents firearms (including separate frames or receivers, actions or barreled actions) manufactured and disposed of in commerce during the calendar year.

Year	Pistols	Revolvers	Total Handguns	Rifles	Shotguns	Total Long-Guns	Production Total
MANUFACTURED							
2019 Interim	3,035,719	579,263	**3,614,982**	1,951,898	480,444	**2,432,342**	**6,047,324**

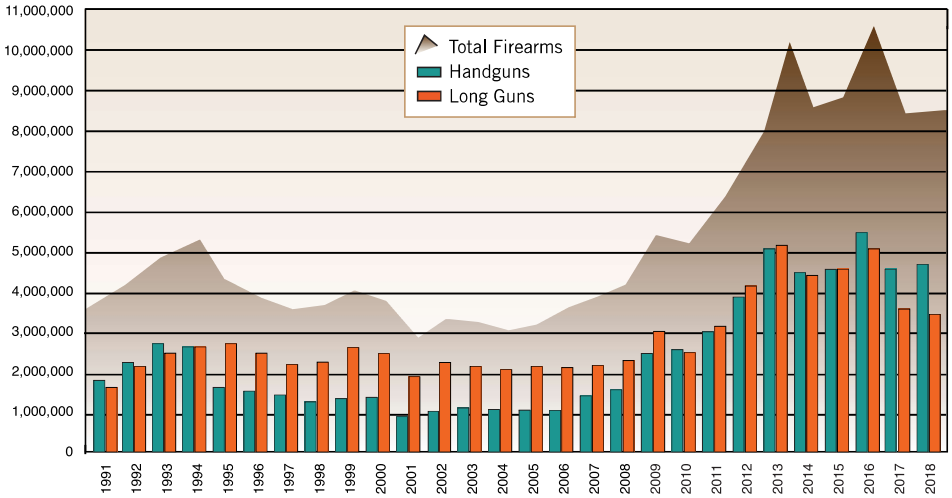
The full 2019 report is expected to be available approximately February 2021. Look for it at www.atf.gov.

U.S. Firearm Production (1991 – 2018)

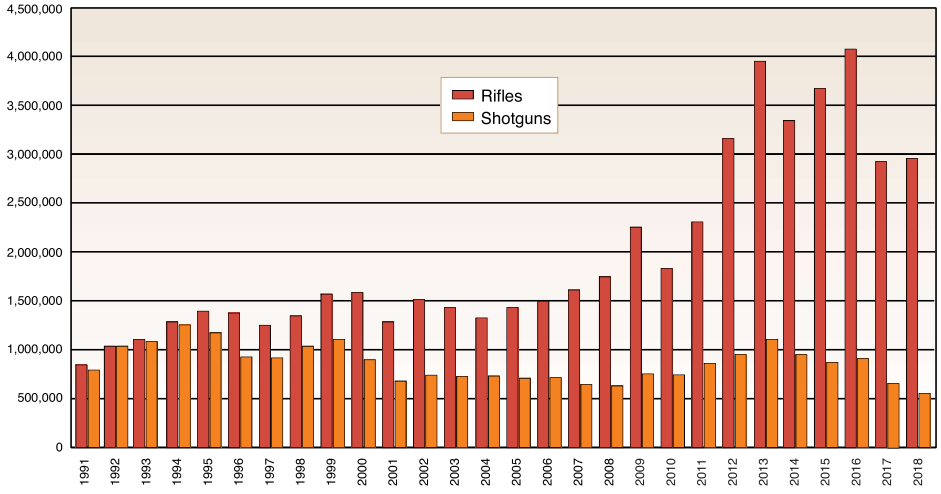
Handguns



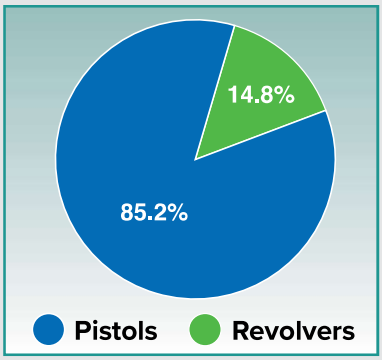
Total Production



Long Guns



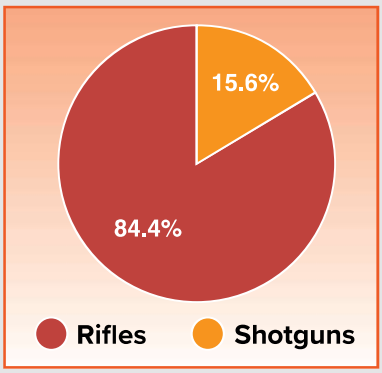
2018 Production At A Glance



Pistols by Caliber		
To .22	417,805	10.9%
To. 25	25,370	0.7%
To .32	30,306	0.8%
To .380	760,044	19.8%
To 9mm	2,062,010	53.7%
To .50	546,809	14.2%
	3,842,344	100.0%

Revolver by Caliber		
To .22	271,553	40.8%
To .32	1,100	0.2%
To. 357 M	113,394	17.1%
To .38 Sp	199,028	29.9%
To .44 M	42,434	6.4%
To. 50	37,323	5.6%
	664,832	100.0%

NOTE: Caliber designations as reported in ATF reports are preceded by the word "to." This represents a range of calibers in a category. For example, the pistol "To .50" category includes .40- and .45-caliber models among others that are larger than 9mm.

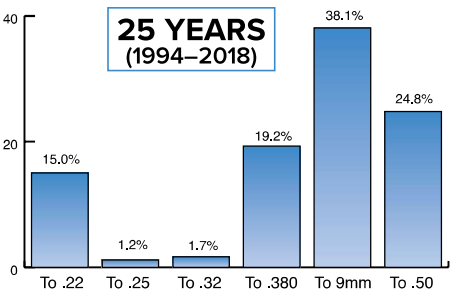


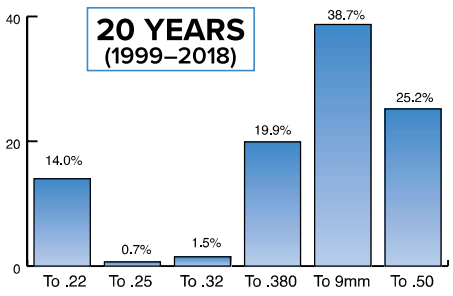
Source: AFMER

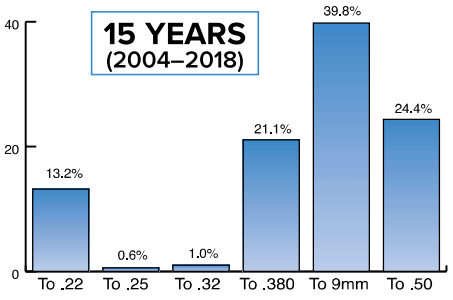
U.S. Pistol Production by Caliber (1991 – 2018)

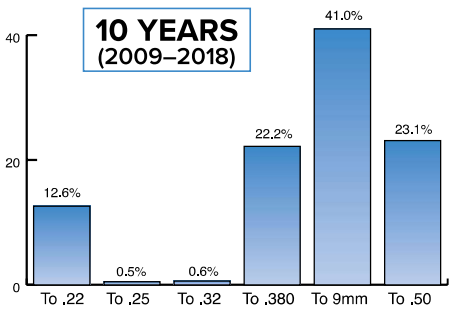
Year	To .22	To .25	To .32	To .380	To 9mm	To .50	TOTALS
1991	306,088	252,370	55,007	215,595	358,228	190,964	1,378,252
1992	352,621	253,955	50,916	371,095	468,182	172,768	1,669,537
1993	452,509	277,306	52,268	508,469	586,039	216,771	2,093,362
1994	449,495	119,769	25,972	313,915	750,693	344,454	2,004,298
1995	260,059	51,025	19,220	182,801	398,472	283,707	1,195,284
1996	206,485	41,156	20,709	166,089	319,696	233,393	987,528
1997	250,983	43,103	43,623	154,046	303,212	241,110	1,036,077
1998	184,836	50,936	62,338	98,266	284,374	279,615	960,365
1999	229,852	24,393	52,632	81,881	270,298	336,390	995,446
2000	184,577	23,198	60,527	108,523	277,176	308,900	962,901
2001	123,374	5,697	57,823	41,634	213,378	184,930	626,836
2002	144,722	10,009	53,999	59,476	205,197	268,111	741,514
2003	189,785	10,987	43,471	79,788	219,668	267,961	811,660
2004	211,473	10,140	32,435	68,291	182,493	223,679	728,511
2005	139,178	10,455	29,024	107,386	299,681	217,701	803,425
2006	141,651	9,625	39,197	126,939	352,383	351,465	1,021,260
2007	180,419	11,361	43,914	138,484	391,312	454,174	1,219,664
2008	195,633	14,586	40,485	278,945	421,746	435,876	1,387,271
2009	320,697	15,053	47,396	390,897	586,364	507,861	1,868,268
2010	320,237	21,722	39,792	615,630	591,876	498,320	2,087,577
2011	357,884	19,182	13,890	537,063	838,957	697,279	2,464,255
2012	586,625	9,853	11,248	582,645	1,175,564	945,146	3,311,081
2013	554,431	18,578	6,591	852,663	1,653,900	1,228,387	4,314,550
2014	410,747	19,097	10,494	873,087	1,254,582	1,034,570	3,602,577
2015	410,041	11,567	14,763	819,103	1,531,033	766,528	3,553,035
2016	439,628	13,174	10,269	1,129,761	2,275,660	837,438	4,705,930
2017	408,705	11,135	8,152	848,425	1,756,618	657,971	3,691,006
2018	417,805	25,370	30,306	760,044	2,062,010	546,809	3,842,344
TOTALS	8,430,540	1,384,802	976,461	10,510,941	20,028,792	12,732,278	54,063,814

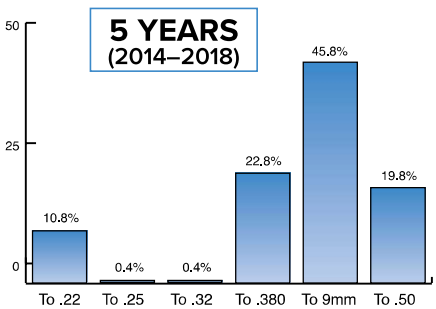
Percentage of Pistols produced in the U.S. by caliber











NOTE: Caliber designations as reported in ATF reports are preceded by the word "to." This represents a range of calibers in a category. For example, the pistol "To .50" category includes .40- and .45- caliber models among others that are larger than 9mm.

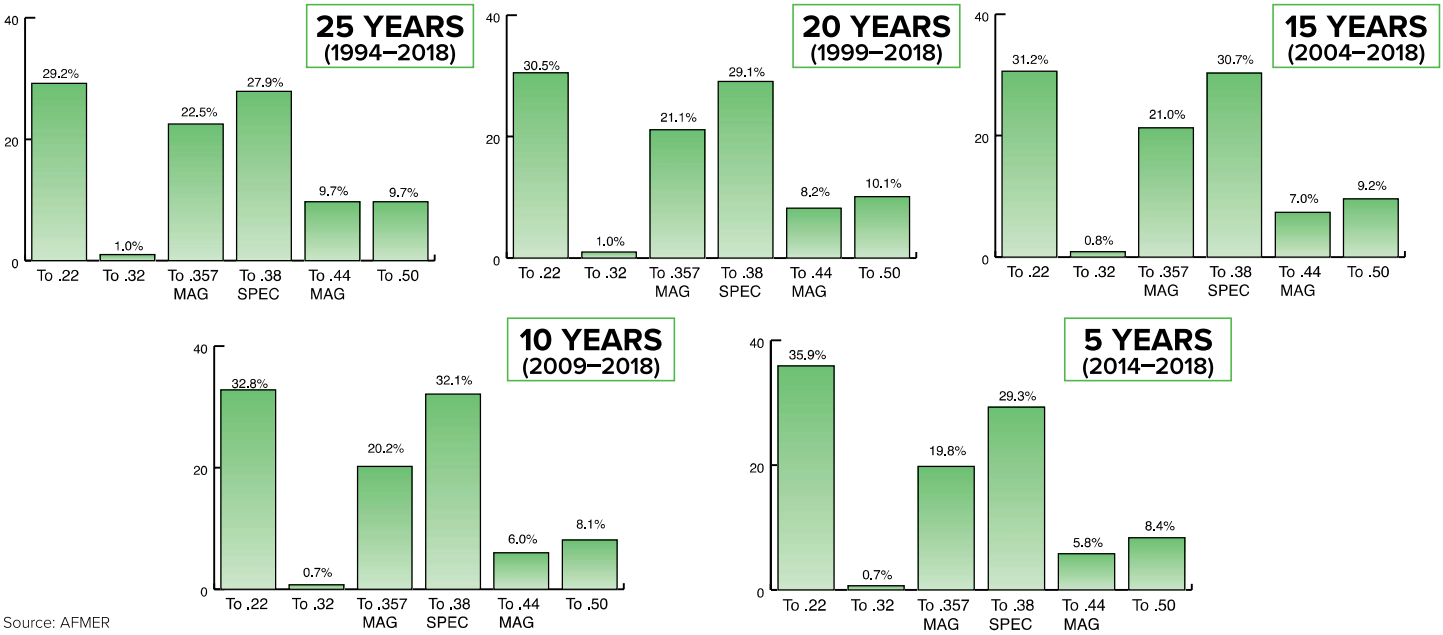
Source: AFMER

NSSF 000021

U.S. Revolver Production by Caliber (1991 – 2018)

Year	To .22	To .32	To .357 MAG	To .38 SPEC	To .44 MAG	To .50	TOTALS
1991	79,676	10,957	155,237	121,387	76,582	13,127	456,966
1992	74,408	10,243	168,720	120,721	80,705	14,616	469,413
1993	122,614	10,421	183,328	146,767	70,381	28,781	562,292
1994	133,990	9,160	170,856	146,630	89,713	36,101	586,450
1995	99,578	4,381	210,379	92,913	90,144	30,269	527,664
1996	127,119	3,083	134,910	115,432	80,456	37,944	498,944
1997	109,296	3,876	70,792	85,935	61,324	39,205	370,428
1998	68,108	2,602	73,905	77,289	64,236	38,250	324,390
1999	80,140	5,844	68,174	86,356	55,957	39,313	335,784
2000	79,472	1,598	81,017	59,339	46,931	50,603	318,960
2001	77,433	5,003	50,120	85,628	39,515	62,444	320,143
2002	86,806	17,599	95,570	51,472	46,080	49,543	347,070
2003	108,518	3,928	59,591	57,078	46,533	33,716	309,364
2004	88,570	3,446	62,640	54,842	35,097	49,504	294,099
2005	63,333	2,297	68,476	68,785	25,802	45,512	274,205
2006	84,452	2,242	99,562	85,321	54,308	56,184	382,069
2007	91,963	3,509	93,320	104,498	46,719	51,325	391,334
2008	115,511	6,681	105,944	133,621	31,135	38,861	431,753
2009	141,840	7,590	107,834	232,339	29,967	27,977	547,547
2010	131,543	8,605	126,525	210,762	45,361	36,131	558,927
2011	153,749	5,182	125,237	206,191	35,791	46,707	572,857
2012	234,164	1,717	126,594	203,005	36,116	65,761	667,357
2013	226,749	1,914	149,730	238,384	46,466	62,039	725,282
2014	200,739	5,260	151,635	283,990	41,640	60,783	744,047
2015	278,784	9,413	185,976	225,782	48,170	136,453	884,578
2016	320,773	7,851	182,564	248,143	51,451	45,506	856,288
2017	319,364	1,715	134,053	177,956	42,062	45,767	720,917
2018	271,553	1,100	113,394	199,028	42,434	37,323	664,832
TOTALS	3,693,547	125,596	2,848,798	3,530,719	1,233,408	1,223,221	12,655,289

Percentage of Revolvers produced in the U.S. by caliber



Source: AFMER

NSSF 000022

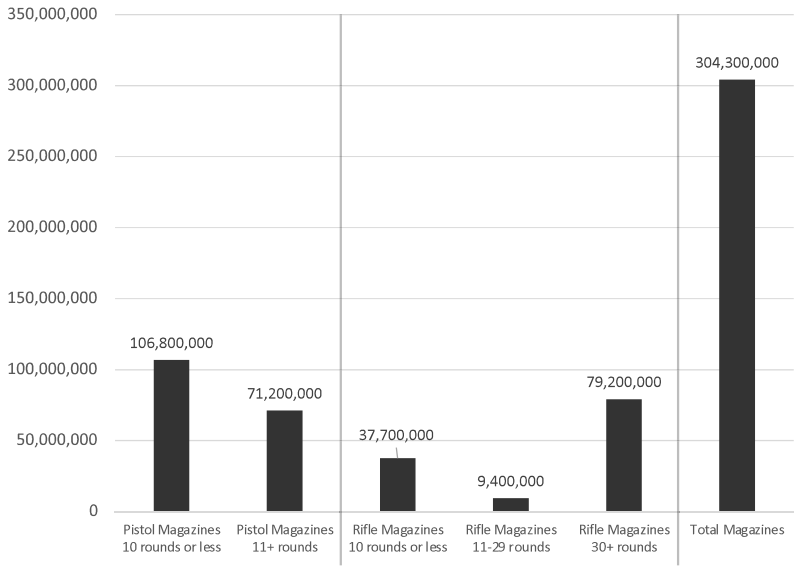
Modern Sporting Rifle Production Plus Imports Less Exports (1990 – 2018)

(estimated)

Year	US Production less exports of MSRs	US Imports less exports of MSRs	TOTALS
1990	43,000	31,000	74,000
1991	46,000	69,000	115,000
1992	33,000	72,000	105,000
1993	62,000	226,000	288,000
1994	103,000	171,000	274,000
1995	54,000	77,000	131,000
1996	27,000	43,000	70,000
1997	44,000	81,000	125,000
1998	70,000	75,000	145,000
1999	113,000	119,000	232,000
2000	86,000	130,000	216,000
2001	60,000	119,000	179,000
2002	97,000	145,000	242,000
2003	118,000	262,000	380,000
2004	107,000	207,000	314,000
2005	141,000	170,000	311,000
2006	196,000	202,000	398,000
2007	269,000	229,000	498,000
2008	444,000	189,000	633,000
2009	692,000	314,000	1,006,000
2010	444,000	140,000	584,000
2011	653,000	163,000	816,000
2012	1,308,000	322,000	1,630,000
2013	1,882,000	393,000	2,275,000
2014	950,000	237,000	1,187,000
2015	1,360,000	244,000	1,604,000
2016	2,217,000	230,000	2,447,000
2017	1,406,000	158,000	1,564,000
2018	1,729,000	225,000	1,954,000
TOTALS	14,754,000	5,043,000	19,797,000

NSSF® Magazine Chart

Estimated 304 Million Detachable Pistol and Rifle Magazines
in U.S. Consumer Possession 1990 – 2018



Source: ATF AFMER, US ITC, Industry estimates

U.S. Production by Manufacturer (2018)

LICENSE NAME HANDGUN	PISTOLS	REVOLVERS	TOTALS
SMITH & WESSON CORP	886,917	210,333	1,097,250
STURM, RUGER & COMPANY, INC	704,588	145,534	850,122
SIG SAUER INC	635,155	0	635,155
GLOCK INC	247,546	0	247,546
KIMBER MFG INC	201,138	9,609	210,747
HERITAGE MANUFACTURING INC	0	187,104	187,104
SCCY INDUSTRIES LLC	169,819	0	169,819
SPRINGFIELD INC	140,037	0	140,037
BROWNING ARMS COMPANY	125,486	0	125,486
TAURUS INTERNATIONAL MANUFACTURING INC	94,600	0	94,600
BERETTA USA CORP	79,432	0	79,432
KEL TEC CNC INDUSTRIES INC	67,151	0	67,151
COLT'S MANUFACTURING COMPANY LLC	40,973	16,697	57,670
FN AMERICA, LLC	51,843	0	51,843
NORTH AMERICAN ARMS INC	365	49,171	49,536
STRASSELLS MACHINE INC	36,900	0	36,900
DIAMONDBACK FIREARMS LLC	36,591	0	36,591
REMINGTON ARMS COMPANY LLC	33,821	0	33,821
COBRA ENTERPRISES OF UTAH, INC	30,330	6	30,336
CHARCO 2000 INC	0	21,761	21,761
VALLEY STEEL STAMP INC	0	21,438	21,438
PHOENIX ARMS	20,000	0	20,000
JIMENEZ ARMS INC	19,927	0	19,927
BOND ARMS, INC	15,854	0	15,854
AMERICAN TACTICAL INC	14,946	0	14,946
SAEILO, INC	13,449	0	13,449
HASKELL MANUFACTURING INC	12,800	0	12,800
PALMETTO STATE ARMORY, LLC	9,613	0	9,613
CZ-USA INC (subsid: Dan Wesson)	8,764	440	9,204
FMK FIREARMS INCORPORATED	8,359	0	8,359
DANIEL DEFENSE INC	7,565	0	7,565
IBERIA FIREARMS INC	7,400	0	7,400
CZ USA	6,444	0	6,444
FREEDOM ORDNANCE MANUFACTURING INC	6,229	0	6,229
WILSONS GUN SHOP INC	5,759	0	5,759
CMMG INC	5,730	0	5,730
TRAILBLAZER FIREARMS LLC	5,337	0	5,337
STI FIREARMS LLC	5,204	0	5,204
ALPHATECH INC	4,775	0	4,775
KRISS USA, INC	4,378	0	4,378
HENRY RAC HOLDING CORP	4,326	0	4,326
HECKLER & KOCH, INC	4,308	0	4,308
PAUWAY CORP	4,250	0	4,250
RADICAL FIREARMS LLC	3,907	0	3,907
FULL CONCEAL INC	3,675	0	3,675
CENTURY ARMS INC	3,299	0	3,299
MASTERPIECE ARMS HOLDING COMPANY	3,045	0	3,045
DEL-TON, INC	2,750	0	2,750
PTR INDUSTRIES INC	2,676	0	2,676
VLH INC	2,587	0	2,587
HONOR DEFENSE LLC	2,447	0	2,447
NIGHTHAWK CUSTOM LLC	2,429	0	2,429
POLYMER80 INC	2,203	0	2,203
EXTAR LLC	1,609	0	1,609
FRANK ROTH CO INC	0	1,490	1,490
WHALLEY PRECISION INC	1,479	0	1,479
FEDERAL ARMAMENT LLC	1,158	0	1,158
LES BAER CUSTOM INC	1,153	0	1,153
LWRC INTERNATIONAL	1,135	0	1,135
ARES DEFENSE SYSTEMS INC	1,126	0	1,126
TOTALS	3,842,344	664,832	4,507,176

NOTE: Manufacturers producing less than 1,000 handguns in 2018 are not displayed above, but all reported untis are included in the total.

LICENSE NAME LONG GUNS	RIFLES	SHOTGUNS	TOTALS
STURM, RUGER & COMPANY, INC	731,585	10	731,595
REMINGTON ARMS COMPANY LLC	273,246	155,488	428,734
SAVAGE ARMS, INC	370,443	15,265	385,708
MAVERICK ARMS, INC	77,747	249,183	326,930
SMITH & WESSON CORP	278,372	228	278,600
HENRY RAC HOLDING CORP	238,158	3,914	242,072
KEL TEC CNC INDUSTRIES INC	74,557	22,698	97,255
SPRINGFIELD INC	63,536	0	63,536
BP FIREARMS COMPANY LLC	58,243	0	58,243
HENRY WISCONSIN LLC	42,443	14,439	56,882
KEYSTONE SPORTING ARMS LLC	48,300	0	48,300
DIAMONDBACK FIREARMS LLC	46,593	0	46,593
AERO PRECISION LLC	43,000 *	0	43,000
STRASSELLS MACHINE INC	39,500	0	39,500
WEATHERBY INC	28,925	10,297	39,222
AMERICAN TACTICAL INC	31,747	3,116	34,863
DEL-TON, INC	33,416	0	33,416
OUTDOOR COLORS LLC	15,137	17,853	32,990
BERETTA USA CORP	2,496	25,669	28,165
SIG SAUER INC	26,799	0	26,799
CENTURY ARMS INC	24,249	0	24,249
DANIEL DEFENSE INC	23,884	47	23,931
COLT'S MANUFACTURING COMPANY LLC	21,613	0	21,613
PALMETTO STATE ARMORY, LLC	20,990	0	20,990
TDJ INC	17,191	0	17,191
RADICAL FIREARMS LLC	15,809	0	15,809
STAG ARMS LLC	13,735	0	13,735
KIMBER MFG INC	13,674	0	13,674
WM C ANDERSON INC	13,336	0	13,336
WINDHAM WEAPONRY INC	11,240	0	11,240
STRATEGIC ARMORY CORPS LLC	8,120	0	8,120
ROCK RIVER ARMS INC	7,679	0	7,679
LWRC INTERNATIONAL	7,414	0	7,414
I O INC	7,343	0	7,343
FEDERAL ARMAMENT LLC	2,205	5,115	7,320
CZ USA	7,152	137	7,289
BRAVO COMPANY MFG INC	7,001	0	7,001
PTR INDUSTRIES INC	6,924	0	6,924
BARRETT FIREARMS MFG INC	6,187	286	6,473
SAEILO, INC	6,166	0	6,166
O F MOSSBERG & SONS INC	5,601	0	5,601
PATRIOT ORDNANCE FACTORY INC	4,863	0	4,863
FN AMERICA, LLC	4,803	0	4,803
BEAR CREEK ARSENAL LLC	4,305	0	4,305
KRISS USA, INC	4,170	0	4,170
FORGE METAL FINISHING INC	0	3,958	3,958
BLACK RAIN ORDNANCE INC	3,933	0	3,933
CMMG INC	3,621	0	3,621
STANDARD MANUFACTURING CO LLC	197	3,119	3,316
JAMES RIVER ARMORY	3,187	0	3,187
TACTICAL SOLUTIONS INC	2,988	0	2,988
BROWNELLS INC	2,687	0	2,687
ALEX PRO FIREARMS LLC	2,587	0	2,587
PRIMARY WEAPONS SYSTEMS INC	2,374	0	2,374
TROY INDUSTRIES INC	2,271	0	2,271
WILSONS GUN SHOP INC	2,003	144	2,147
ADAMS ARMS LLC	2,095	0	2,095
FMK FIREARMS INCORPORATED	2,075	0	2,075
GOOD TIME OUTDOORS INC	2,021	0	2,021
DESERT TECH LLC	2,013	0	2,013
TOTALS	2,905,178	536,119	3,441,297

NOTE: Manufacturers producing less than 2,000 long guns in 2018 are not displayed above, but all reported units are included in the total.

Top 25 Manufacturers of Firearms Manufactured in the U.S.

(Based on Total U.S. Production in 2018)

LICENSE NAME	PISTOLS	REVOLVERS	TOTAL HANDGUNS	RIFLES	SHOTGUNS	TOTAL LONG GUNS	TOTAL FIREARMS MANUFACTURED	% OF TOTAL 2018 U.S. HANGUN & LONG GUN PRODUCTION
STURM, RUGER & COMPANY, INC	704,588	145,534	850,122	731,585	10	731,595	1,581,717	19.9%
SMITH & WESSON CORP	886,917	210,333	1,097,250	278,372	228	278,600	1,375,850	17.3%
SIG SAUER INC	635,155	0	635,155	26,799	0	26,799	661,954	8.3%
REMINGTON ARMS COMPANY LLC	33,821	0	33,821	273,246	155,488	428,734	462,555	5.8%
SAVAGE ARMS, INC	0	0	0	370,443	15,265	385,708	385,708	4.9%
MAVERICK ARMS, INC	0	0	0	77,747	249,183	326,930	326,930	4.1%
GLOCK INC	247,546	0	247,546	0	0	0	247,546	3.1%
HENRY RAC HOLDING CORP	4,326	0	4,326	238,158	3,914	242,072	246,398	3.1%
KIMBER MFG INC	201,138	9,609	210,747	13,674	0	13,674	224,421	2.8%
SPRINGFIELD INC	140,037	0	140,037	63,536	0	63,536	203,573	2.6%
HERITAGE MANUFACTURING INC	0	187,104	187,104	0	0	0	187,104	2.4%
SCCY INDUSTRIES LLC	169,819	0	169,819	0	0	0	169,819	2.1%
KEL TEC CNC INDUSTRIES INC	67,151	0	67,151	74,557	22,698	97,255	164,406	2.1%
BROWNING ARMS COMPANY	125,486	0	125,486	912	0	912	126,398	1.6%
BERETTA USA CORP	79,432	0	79,432	2,496	25,669	28,165	107,597	1.4%
TAURUS INTERNATIONAL MANUFACTURING INC	94,600	0	94,600	97	0	97	94,697	1.2%
DIAMONDBACK FIREARMS LLC	36,591	0	36,591	46,593	0	46,593	83,184	1.0%
COLT'S MANUFACTURING COMPANY LLC	40,973	16,697	57,670	21,613	0	21,613	79,283	1.0%
STRASSELLS MACHINE INC	36,900	0	36,900	39,500	0	39,500	76,400	1.0%
BP FIREARMS COMPANY LLC	0	0	0	58,243	0	58,243	58,243	0.7%
HENRY WISCONSIN LLC	11	0	11	42,443	14,439	56,882	56,893	0.7%
FN AMERICA, LLC	51,843	0	51,843	4,803	0	4,803	56,646	0.7%
AMERICAN TACTICAL INC	14,946	0	14,946	31,747	3,116	34,863	49,809	0.6%
NORTH AMERICAN ARMS INC	365	49,171	49,536	0	0	0	49,536	0.6%
KEYSTONE SPORTING ARMS LLC	823	0	823	48,300	0	48,300	49,123	0.6%
Total Produced in 2018 by Top 25 Manufacturers	3,572,468	618,448	4,190,916	2,444,864	490,010	2,934,874	7,125,790	89.6%
	93.0%	93.0%	93.0%	84.2%	91.4%	85.3%	89.6%	

Source:AFMER

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U.S. Manufacturers Direct Exports at a Glance (2018)

PISTOL MANUFACTURER	EXPORTS
SIG SAUER INC	167,851
GLOCK INC	110,943
SMITH & WESSON CORP	25,406
STURM, RUGER & COMPANY, INC	10,196
BERETTA USA CORP	5,145
FN AMERICA, LLC	2,377
KIMBER MFG INC	2,225
COLT'S MANUFACTURING COMPANY LLC	1,812
STI FIREARMS LLC	1,048
REMINGTON ARMS COMPANY LLC	827
HENRY RAC HOLDING CORP	720
SPRINGFIELD INC	693
ANGSTADT ARMS LLC	469
TAURUS INTERNATIONAL MANUFACTURING INC	390
SCCY INDUSTRIES LLC	270
STRAYER VOIGT INC / STRAYER-VOIGT LLC	251
LES BAER CUSTOM INC	242
KEL TEC CNC INDUSTRIES INC	213
KRISS USA, INC	197
FMK FIREARMS INCORPORATED	165
SAEILO, INC	121
NIGHTHAWK CUSTOM LLC	110
WILSONS GUN SHOP INC	103
V CUSTOM INC	52
FEDERAL ARMAMENT LLC	51
CABOT GUN COMPANY LLC	51
PISTOL TOTAL	332,218

REVOLVER MANUFACTURER	EXPORTS
SMITH & WESSON CORP	17,009
STURM, RUGER & COMPANY, INC	3,736
KIMBER MFG INC	254
NORTH AMERICAN ARMS INC	232
COLT'S MANUFACTURING COMPANY LLC	223
REVOLVER TOTAL	21,498

SHOTGUN MANUFACTURER	EXPORTS
REMINGTON ARMS COMPANY LLC	13,503
MAVERICK ARMS, INC	9,610
KEL TEC CNC INDUSTRIES INC	1,378
SAVAGE ARMS, INC	1,059
WEATHERBY INC	801
HENRY RAC HOLDING CORP	718
GOOD, WILLIAM J	341
BERETTA USA CORP	308
SHOTGUN TOTAL	27,774

RIFLE MANUFACTURERS	EXPORTS
REMINGTON ARMS COMPANY LLC	44,239
STURM, RUGER & COMPANY, INC	39,731
SAVAGE ARMS, INC	26,335
HENRY RAC HOLDING CORP	10,885
SMITH & WESSON CORP	10,483
BEAR CREEK ARSENAL LLC	8,501
MAVERICK ARMS, INC	5,758
CREED MONARCH INC	2,510
SIG SAUER INC	2,254
WEATHERBY INC	1,790
KEL TEC CNC INDUSTRIES INC	1,412
DANIEL DEFENSE INC	897
BARRETT FIREARMS MFG INC	797
BP FIREARMS COMPANY LLC	782
TDJ INC	754
TNW FIREARMS INC	648
KRISS USA, INC	647
LEWIS MACHINE & TOOL CO	576
FREEDOM ORDNANCE MANUFACTURING INC	540
JUST RIGHT CARBINES LLC	530
DESERT TECH LLC	497
KIMBER MFG INC	478
COLT'S MANUFACTURING COMPANY LLC	461
M+M INC	446
STRATEGIC ARMORY CORPS LLC	316
FEDERAL ARMAMENT LLC	298
TROY INDUSTRIES INC	280
PNEU DART INC	244
TIPPMANN ARMS COMPANY LLC	236
PATRIOT ORDNANCE FACTORY INC	207
NORDIC COMPONENTS INC	172
STAG ARMS LLC	160
SPRINGFIELD INC	156
ZDF IMPORT/EXPORT, LLC	156
AMCHAR WHOLESALE, INC	130
JARD INC	126
V CUSTOM INC	118
WINDHAM WEAPONRY INC	70
AERO PRECISION LLC	69
GUNWERKS LLC	51
RIFLE TOTAL	165,573

Source: Annual Firearms Manufacturing and Export Report (AFMER)
NOTE: A manufacturer that reported exporting less than 50 units does not appear in the tables above.

Source: AFMER

Industry Statistics (current Snapshot)

The data listed on this page is sourced from the most current Census Bureau report. At this time it is the 2018 Annual Survey of Manufacturers. NAICS (North American Industry classification System) code 332992 represents "Small-Arms Ammunition," and NAICS code 332 represents "Fabricated-Metal-Product Manufacturing."

DEFINITION OF TERMS

Employees: includes all full-time and part-time employees on the payroll of operating manufacturing establishments.

Production workers: includes workers (up through the line-supervisor level) actively engaged in the manufacturing process.

Payroll: includes the gross earnings of all employees paid in a calendar year.

Value added: measure of manufacturing activity derived by subtracting the cost of materials and supplies from the value of shipments (finished products and services rendered).

Capital expenditures: represents the total new and used expenditures reported by establishments in operation and any known plants under construction.

Inventories: includes products and materials held outside of the establishment, such as in warehouses (private or public).

INDUSTRY STATISTIC	(332) Fabricated Metal Product Manufacturing (2018)	(332992) Firearms Ammunition Manufacturing (2018)	Ammunition Manufacturing as Percent of Total Fabricated Metal Product Manufacturing
Employment & Labor Costs			
Total number of employees	1,400,643	11,851	0.8%
Number of production workers	1,058,271	10,313	1.0%
Production workers hours worked	2,048,355,000	21,128,000	1.0%
Production workers wages	$50,421,928,000	$522,928,000	1.0%
Total annual payroll	$77,612,291,000	$655,992,000	0.8%
Total fringe benefits	**	**	not available
Total annual compensation	**$77,612,291,000**	**$655,992,000**	**0.8%**
Purchased Fuels and Electric Energy Used for Heat and Power			
Electric energy purchased (kWh)	42,369,630,000	400,619,000	0.9%
Cost of electric energy	$3,617,620,000	$31,563,000	0.9%
Cost of purchased fuels	$1,263,081,000	D*	not available
Total cost of fuels and electric energy	**$4,880,701,000**	**$31,563,000**	**0.6%**
Capital Expenditures for Plant and Equipment			
Capital expenditures for buildings and other structures	**	**	not available
Rental or lease payments (buildings and equipment)	$4,973,295,000	$27,886,000	0.6%
Capital expenditures for machinery and equipment	**	**	not available
All other operating expenses	$29,322,789,000	$317,891,000	1.1%
Total capital expenditures for plant and equipment	**$34,296,084,000**	**$345,777,000**	**1.0%**
Value of Manufacturers' Inventories by Stage of Fabrication			
Beginning of Year			
Finished products	$18,033,061,000	$350,082,000	1.9%
Work-in-process	$12,548,241,000	$232,261,000	1.9%
Materials and supplies inventories	$18,501,248,000	$202,336,000	1.1%
Total	**$49,082,550,000**	**$784,679,000**	**1.6%**
End of Year			
Finished products	$19,272,292,000	$379,817,000	2.0%
Work-in-process	$13,786,425,000	$195,571,000	1.7%
Materials and supplies inventories	$20,902,305,000	$204,010,000	1.0%
Total	**$53,961,022,000**	**$779,398,000**	**1.4%**
Manufacturing Activity			
Total value of shipments	**$375,880,137,000**	**$3,960,277,000**	**1.1%**
Total cost of materials	**$171,539,777,000**	**$1,659,962,000**	**1.0%**
Value added	**$206,817,774,000**	**$2,293,361,000**	**1.1%**

Source: 2018 Annual Survey of Manufacturers (ASM)
NOTE: The D* indicates that information was withheld to avoid disclosing data for individual companies. Double asterisks, **, identify data fields that are expected to be available between November 2020 and January 2021.

**NOTE: The fabricated metal product manufacturing (NAICS code 332) subsector consists of all of these industry groups. Forging and Stamping: NAICS 3321; Cutlery and Handtool Manufacturing: NAICS 3322; Architectural and Structural Metals Manufacturing: NAICS 3323; Boiler, Tank, and Shipping Container Manufacturing: NAICS 3324; Hardware Manufacturing: NAICS 3325; Spring and Wire Product Manufacturing: NAICS 3326; Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing: NAICS 3327; Coating, Engraving, Heat Treating, and Allied Activities: NAICS 3328; Other Fabricated Metal Product Manufacturing: NAICS 3329.

NSSF 000026

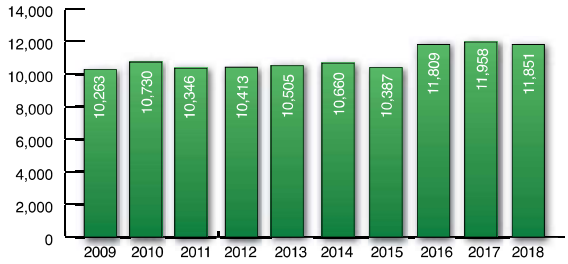
Manufacturing Trends

Small Arms Ammunition (NAICS 332992)

ALL EMPLOYEES (NUMBER)

10-Year Average

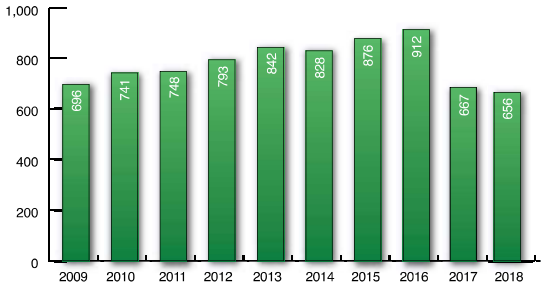
Small Arms Ammunition: 10,892



PAYROLL ($ IN MILLIONS)

10-Year Average

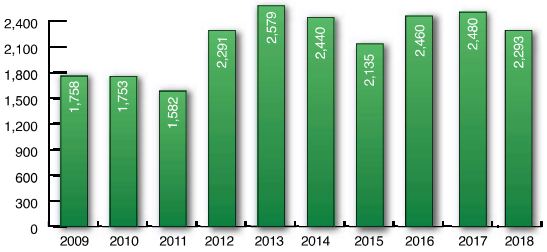
Small Arms Ammunition: $776M



VALUE ADDED ($ IN MILLIONS)

10-Year Average

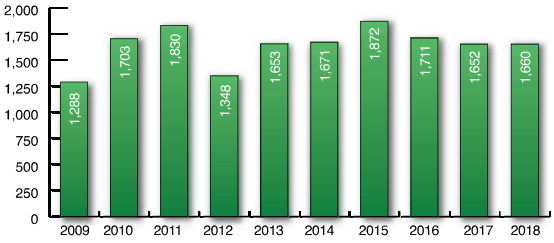
Small Arms Ammunition: $2,177M



COST OF MATERIALS ($ IN MILLIONS)

10-Year Average

Small Arms Ammunition: $1,639M



Source: U.S. Census Bureau Annual Survey of Manufacturers (ASM) and Economic Census reports

U.S. Ammunition Consumer Market Unit Estimate			
Category	**2012**	**2015**	**2018**
Shotshell	1.4 billion	1.4 billion	1.0 billion
Rimfire	4.5 billion	5.4 billion	4.1 billion
Centerfire	3.6 billion	3.7 billion	3.6 billion
TOTALS	9.5 billion	10.5 billion	8.7 billion

Source: USITC and NSSF Estimates

Firearm Imports By Country (2009 – 2018) (in actual units of quantity)

Pistols: HTS 9302000040 [PISTOLS, SEMIAUTOMATIC EXCEPT OF HEADING 9303 OR 9304] --or-- HTS 9302000090 [PISTOLS, EXCEPT OF HEADING 9303 OR 9304, NESOI (not elsewhere specified or included)]

COUNTRY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALS
Argentina	63,872	74,245	71,838	75,984	82,635	43,710	42,304	75,834	33,676	39,969	604,067
Austria	602,146	431,118	515,396	821,522	932,117	794,540	923,986	1,318,204	1,198,740	927,511	8,465,280
Belgium	33,195	18,874	9,769	10,754	14,493	18,221	18,679	25,299	21,691	25,410	196,385
Brazil	285,075	206,207	161,597	215,470	215,895	113,976	273,792	455,368	465,652	501,995	2,895,027
Bulgaria	2,881	3,325	1,450	4,586	8,397	270	6,267	3,290	1,174	1,293	32,933
Canada	10,544	6	2	13	36	134	15	4	106	1	10,861
Colombia	0	0	0	0	0	0	0	0	0	10	10
Croatia	272,204	239,021	211,001	389,014	451,657	441,337	338,535	574,486	326,653	295,107	3,539,015
Czech Republic	49,408	19,531	18,588	38,540	37,467	47,104	71,889	107,600	140,653	184,926	715,706
Denmark	0	0	0	0	0	0	0	0	75	0	75
Finland	0	0	0	1	0	52	0	5	3	130	191
France	0	0	10	465	15	0	13	34	25	263	825
Germany	282,075	221,446	254,574	402,566	502,117	282,018	225,052	416,961	325,829	307,085	3,219,723
Hungary	7,950	349	311	695	777	898	1,521	852	488	883	14,724
Israel	10,238	2,645	9,995	20,017	23,979	13,189	15,618	22,342	15,174	11,979	145,176
Italy	81,811	86,867	63,540	154,999	171,221	106,462	48,909	129,456	124,490	97,909	1,065,664
Japan	0	0	0	0	0	40	0	0	0	0	40
Norway	14	21	14	0	1	10	28	23	0	24	135
Pakistan	0	0	0	0	161	250	575	175	400	0	1,561
Philippines	27,294	38,572	48,908	73,430	131,898	62,823	66,408	78,314	68,754	100,802	697,203
Poland	10,234	3,922	20,895	9,806	8,406	12,094	10,276	11	45	5,431	81,120
Romania	10,571	16,945	13,775	3,579	3,655	5,800	9,460	5,272	10,311	23,562	102,930
Russia	90	1,050	5,400	61	772	0	0	60	17	0	7,450
Serbia	3,038	12,455	720	29,204	48,786	10,180	18,066	12,823	16,470	5,575	157,317
Slovakia	0	0	0	801	1,204	417	1,075	1,223	2,196	1,996	8,912
Slovenia	0	0	0	0	0	0	1,058	7,083	6,014	3,232	17,387
South Africa	0	0	0	0	17	0	0	0	0	18	35
South Korea	20	29	0	1,021	3,879	62	0	47	0	70	5,128
Spain	410	989	322	376	262	10,485	83	622	22,793	21,022	57,364
Sweden	0	0	13	45	31	9	0	0	4	35	137
Switzerland	2,207	735	979	3,110	5,508	2,222	3,953	2,289	6,982	10,600	38,585
Turkey	17,984	15,825	15,408	25,798	92,321	17,446	61,948	87,999	81,330	70,923	486,982
United Arab Em	0	0	0	3,814	909	47	0	110	300	0	5,180
United Kingdom	0	1	4,355	1	63	149	59	66	2	155	4,851
TOTALS	1,774,261	1,394,178	1,448,435	2,286,720	2,738,747	1,983,945	2,139,744	3,326,334	2,871,027	2,637,916	22,601,307

Revolvers: HTS 9302000020 [REVOLVERS, EXCEPT OF HEADING 9303 OR 9304]

COUNTRY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALS
Argentina	303	0	0	200	0	100	0	0	0	0	603
Brazil	368,128	319,804	198,249	228,876	236,270	98,480	211,847	201,544	238,101	162,703	2,264,002
Czech Republic	6,287	9	83	38	0	0	0	115	42	58	6,632
France	0	0	0	2	350	163	8	420	497	233	1,673
Germany	9,367	8,431	9,423	11,416	11,747	11,906	12,010	15,383	15,724	16,224	121,631
Italy	16,929	18,536	27,847	40,238	53,152	48,617	45,843	50,665	49,889	56,311	408,027
Philippines	6,127	6,054	5,339	6,666	8,915	8,198	13,049	18,852	19,034	22,816	115,050
Poland	0	0	0	0	0	79	507	0	0	0	586
Russia	0	0	11,500	11,486	0	0	0	0	0	0	22,986
Serbia	0	0	0	0	1,872	0	0	0	0	0	1,872
Slovakia	1,503	260	640	480	0	0	0	0	0	0	2,883
Spain	0	0	0	0	0	0	156	586	0	0	742
Switzerland	23	3	12	0	268	0	18	5	28	63	420
Turkey	0	0	0	0	0	20	0	125	250	0	395
Ukraine	1,000	0	5,500	0	4,000	0	0	0	0	0	10,500
United Arab Em	0	0	285	4,995	0	0	0	0	0	0	5,280
United Kingdom	489	360	0	0	1	83	0	20	5	56	1,014
TOTALS	410,156	353,457	258,878	304,397	316,582	167,646	283,438	287,723	323,572	258,465	2,964,314

Note: Countries with limited activity over this 10-year period are not shown; however, the totals include the units from all countries.
Source: Data from the U.S. Department of Commerce and the U.S. International Trade Commission.

More detail on import and export data is available through the USITC website at dataweb.usitc.gov/. To obtain the highest level of product definition, use the HTS (Harmonized Tariff Schedule) 10-digit codes whenever possible.

Refer to the most current 'Harmonized Tariff Schedule' for IMPORT codes and to 'Schedule B' for EXPORT codes. Note that import and export codes do not always match.

The import and export data on DataWeb for 2010 – 2018 have been updated as of June 21, 2020 based on the latest official revisions from the Census Bureau (the first official revisions for 2020 data will not be available until June 2021).

For posted corrections pertaining to years prior to 2010, go to: census.gov/foreign-trade/statistics/corrections/index.html

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Firearm Imports By Country (2009 – 2018) (in actual units of quantity)

Shotguns: HTS 930320 [SPORTING, HUNTING OR TARGET-SHOOTING SHOTGUNS, INCLUDING COMBINATION SHOTGUN-RIFLES, EXCEPT MUZZLELOADING FIREARMS]

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALS
Austria	245	497	1,507	783	618	34	716	65	19	1,264	5,748
Belgium	25	48	114	157	9	1,377	715	546	120	3,768	6,879
Brazil	172,369	169,136	105,676	125,891	119,090	58,729	38,225	39,225	36,947	61,082	926,370
Canada	13	0	13	26	5	0	192	148	0	0	397
China	53,336	61,956	90,952	154,446	234,486	112,095	164,818	149,091	140,171	111,696	1,273,047
Czech Republic	1,738	34	6	0	142	50	109	22	15	43	2,159
France	20	20	10	6,284	10	9	23	84	116	79	6,655
Germany	1,254	2,364	2,204	3,467	1,370	1,224	1,547	2,371	2,284	3,589	21,674
Hungary	0	0	0	34	0	0	0	50	0	0	84
Italy	140,500	139,182	137,767	170,460	212,557	206,773	199,231	182,368	138,323	168,368	1,695,529
Japan	1,148	344	1,834	2,875	1,525	652	907	766	733	931	11,715
Pakistan	5	4	0	0	19	0	335	0	250	0	613
Philippines	560	1,139	950	5,500	9,800	6,496	6,400	7,100	3,100	8,050	49,095
Portugal	5	704	2,115	2,384	6,415	3,465	4,175	78	10	33	19,384
Russia	60,937	3,708	50,837	47,360	34,904	21,830	5,150	12,420	7,410	14	244,570
Spain	4,628	1,722	1,328	1,692	1,620	1,746	839	2,637	4,191	1,554	21,957
Sweden	133	42	0	238	143	228	2	183	91	27	1,087
Turkey	113,618	122,721	122,682	174,212	306,312	233,371	220,310	335,190	295,362	342,184	2,265,962
United Kingdom	8,046	6,099	8,251	8,836	8,922	490	578	4,042	2,847	3,864	51,975
TOTALS	558,679	509,792	530,564	704,828	937,952	648,592	644,274	736,443	631,998	706,648	6,604,900

Source: Data on this page have been compiled from the U.S. Department of Commerce and the U.S. International Trade Commission (USITC).
NOTE: The bottom-line total accounts for all imports under the HTS code listed, but countries with limited activity over the period shown are not displayed.

Rifles: HTS 930330 [SPORTING, HUNTING OR TARGET-SHOOTING RIFLES, EXCEPT MUZZLELOADING FIREARMS AND COMBINATION SHOTGUN-RIFLES] (Adjusted to EXCLUDE HTS codes 9303304010 & 9303308005 - Telescopic Sights Imported with Rifles)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALS
Australia	2	5	23	1	1	0	0	61	0	820	913
Austria	2,593	2,756	6,192	6,319	8,966	2,988	1,109	3,387	3,113	4,778	42,201
Belgium	21,819	16,017	16,317	20,634	29,920	34,067	54,497	58,129	40,268	29,651	321,319
Brazil	94,858	46,243	156,847	316,577	404,234	56,411	78,585	31,204	19,317	138,931	1,343,207
Bulgaria	5,142	0	0	10,790	31,087	12,900	5,100	290	1,816	3,000	70,125
Canada	161,552	134,519	156,860	267,993	292,404	258,803	276,821	225,108	202,119	172,406	2,148,585
China	0	0	0	0	1,050	4,049	0	0	0	0	5,099
Czech Republic	16,774	15,072	20,236	23,264	25,507	25,412	28,125	31,385	27,080	27,877	240,732
Denmark	157	179	169	0	0	0	0	0	81	0	586
Finland	32,623	26,464	23,417	33,536	43,858	40,183	50,492	56,614	35,285	34,728	377,200
France	60	42	64	64	47	50	482	307	739	544	2,399
Germany	101,939	32,476	42,116	96,013	134,305	39,376	16,008	30,229	9,976	15,043	517,481
Hungary	18,050	0	354	0	0	0	0	0	0	350	18,754
Israel	0	0	0	1	18,502	27,771	4,302	24,965	6,615	3,678	85,834
Italy	21,829	16,393	12,222	20,705	53,115	27,943	26,981	18,873	14,526	18,276	230,863
Japan	83,329	49,946	59,471	71,538	76,399	89,657	87,012	98,324	76,676	67,825	760,177
Mexico	1,770	0	0	0	200	800	0	0	0	0	2,770
Netherlands	0	0	0	0	0	0	0	0	1	1	2
New Zealand	1	0	1	1	0	0	0	3	1	1	8
Philippines	4,092	2,050	1,430	2,437	5,909	7,435	5,603	4,847	3,725	7,430	44,958
Poland	1,313	0	1,081	2,170	510	1,454	527	5	778	2,576	10,414
Portugal	14,173	4,740	0	250	4	1,298	2,117	1,842	8,037	6,287	38,748
Romania	82,312	33,855	37,648	46,533	44,734	14,039	17,870	8,220	5,735	7,053	297,999
Russia	22,933	50,547	87,681	74,512	71,230	29,864	4,404	28,832	8,430	0	378,433
Serbia	1,224	13,468	7,562	20,320	44,672	12,720	17,357	18,139	8,394	154	144,010
South Africa	0	4	14	0	0	0	4	8	2	10	42
Spain	1,532	6,898	10,015	18,989	17,403	9,411	25,393	26,679	39,632	56,182	212,134
Sweden	55	0	138	114	375	758	113	552	298	75	2,478
Switzerland	2,275	1,260	441	163	3,607	3,889	510	526	674	1,917	15,262
Turkey	200	400	1,153	475	0	15	339	2,428	1,330	2,020	8,360
Ukraine	0	6,800	10,600	0	0	0	0	0	0	0	17,400
United Kingdom	5,183	6,665	3,979	3,575	4,243	5,028	4,683	6,019	4,748	5,680	49,803
TOTALS	697,800	466,799	656,256	1,039,716	1,313,678	706,362	708,436	676,987	519,400	607,293	7,392,727

Source: Data on this page have been compiled from the U.S. Department of Commerce and the U.S. International Trade Commission (USITC).
NOTE: The bottom-line total accounts for all imports under the HTS code listed, but countries with limited activity over the period shown are not displayed. Units posted under Russia in 2009 were revised per posted corrections, Census Bureau.

Muzzleloaders: HTS=930310 [MUZZLELOADING]

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTALS
Brazil	480	0	0	0	0	0	0	0	0	0	480
China	56	0	1,500	0	0	0	0	0	0	150	1,706
France	0	0	0	0	2,300	0	2	0	0	2,355	4,657
Germany	30	5	4,183	0	0	0	401	0	0	60	4,679
India	27	87	21	90	135	26	28	0	0	0	414
Italy	37,595	26,171	32,613	40,559	44,007	51,730	42,077	37,499	38,472	31,060	381,783
Spain	103,468	129,472	128,778	124,509	133,189	122,861	111,834	112,951	107,112	104,701	1,178,875
Taiwan	0	0	0	0	0	0	0	65	0	87	152
United Kingdom	0	83	0	0	0	0	498	1	1	1,934	2,517
TOTALS	141,656	155,818	167,095	165,158	179,631	174,919	154,848	150,518	145,989	140,347	1,575,979

Source: Data on this page have been compiled from the U.S. Department of Commerce and the U.S. International Trade Commission (USITC).
NOTE: The bottom-line total accounts for all imports under the HTS code listed, but countries with limited activity over the period shown are not displayed.

U.S. Imports for Consumption (1991 – 2018)

IMPORTS

Year	Revolvers & Pistols (930200)	Rifles (930330)	Shotguns (930320)	Muzzleloaders (930310)	TOTAL FIREARMS
1991	692,282	348,765	98,645	179,674	**1,319,366**
1992	876,314	407,643	325,345	148,679	**1,757,981**
1993	1,169,123	749,433	132,502	197,899	**2,248,957**
1994	1,383,279	733,277	142,590	259,975	**2,519,121**
1995	825,127	286,218	136,733	331,168	**1,579,246**
1996	663,801	234,931	145,676	221,585	**1,265,993**
1997	1,316,931	266,869	142,067	185,145	**1,911,012**
1998	590,661	229,051	163,663	186,514	**1,169,889**
1999	677,757	313,980	335,489	155,764	**1,482,990**
2000	712,661	321,316	332,704	259,315	**1,625,996**
2001	710,958	322,201	428,308	345,534	**1,807,001**
2002	971,135	458,684	498,535	380,499	**2,308,853**
2003	762,764	517,509	498,677	353,673	**2,132,623**
2004	838,856	491,932	507,050	379,883	**2,217,721**
2005	878,172	448,862	546,261	244,564	**2,117,859**
2006	1,164,973	516,127	607,894	208,279	**2,497,273**
2007	1,387,428	612,837	725,635	222,404	**2,948,304**
2008	1,468,062	538,283	535,960	170,998	**2,713,303**
2009	2,184,417	697,800	558,679	141,656	**3,582,552**
2010	1,747,635	466,799	509,792	155,818	**2,880,044**
2011	1,707,313	656,256	530,564	167,095	**3,061,228**
2012	2,591,117	1,039,716	704,828	165,158	**4,500,819**
2013	3,055,329	1,313,678	937,952	179,631	**5,486,590**
2014	2,151,591	706,362	648,592	174,919	**3,681,464**
2015	2,423,182	708,436	644,274	154,848	**3,930,740**
2016	3,614,057	676,987	736,443	150,518	**5,178,005**
2017	3,194,599	519,400	631,998	145,989	**4,491,986**
2018	2,896,381	607,293	706,648	140,347	**4,350,669**
AVERAGE					
5-year (2014 – 2018)	2,855,962	643,696	673,591	153,324	**4,326,573**
10-year (2009 – 2018)	2,556,562	739,273	660,977	157,598	**4,114,410**
15-year (2004 – 2018)	2,086,874	666,718	635,505	186,807	**3,575,904**
20-year (1999 – 2018)	1,756,919	596,723	581,314	214,845	**3,149,801**
25-year (1994 – 2018)	1,596,727	547,392	494,280	219,251	**2,857,651**

Total U.S. Exports (1991 – 2018)

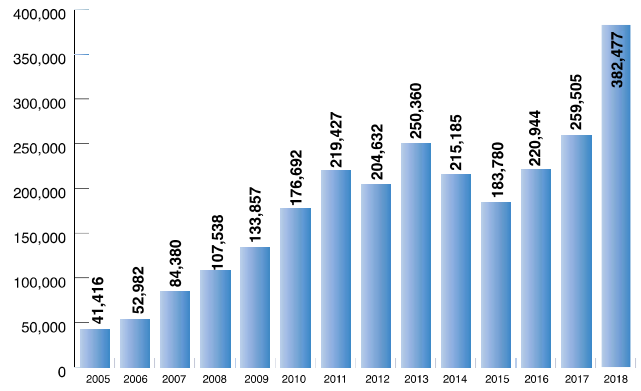
EXPORTS

Year	Revolvers & Pistols (930200)	Rifles (930330)	Shotguns (930320)	Muzzleloaders (930310)	TOTAL FIREARMS
1991	223,248	152,647	165,574	4,823	**546,292**
1992	210,358	152,062	157,109	5,065	**524,594**
1993	170,378	125,694	175,563	29,930	**501,565**
1994	195,031	131,034	163,031	31,872	**520,968**
1995	218,826	106,504	125,387	4,589	**455,306**
1996	193,647	101,961	115,555	15,908	**427,071**
1997	146,846	106,838	105,814	30,785	**390,283**
1998	124,295	85,755	136,652	11,248	**357,950**
1999	116,467	69,389	82,046	7,680	**275,582**
2000	80,249	67,188	95,782	6,063	**249,282**
2001	86,041	83,671	123,430	19,361	**312,503**
2002	82,338	102,588	133,559	8,290	**326,775**
2003	73,337	102,429	95,299	7,294	**278,359**
2004	69,316	236,525	94,854	10,035	**410,730**
2005	80,882	142,252	115,083	12,587	**350,804**
2006	90,944	150,493	130,310	9,536	**381,283**
2007	133,774	220,593	157,536	13,439	**525,342**
2008	151,290	264,114	171,360	11,849	**598,613**
2009	162,951	199,417	123,209	11,185	**496,762**
2010	201,231	205,950	150,956	12,842	**570,979**
2011	247,738	263,223	172,770	8,786	**692,517**
2012	220,923	315,783	180,634	9,841	**727,181**
2013	268,024	363,950	146,624	5,664	**784,262**
2014	234,329	431,890	158,471	9,180	**833,870**
2015	201,390	328,395	101,656	5,693	**637,134**
2016	240,642	266,589	81,689	10,603	**599,523**
2017	278,082	346,936	79,854	5,159	**710,031**
2018	400,172	309,312	71,994	35,711	**817,189**
AVERAGE					
5-year (2014 – 2018)	270,923	336,624	98,733	13,269	**719,549**
10-year (2009 – 2018)	245,548	303,145	126,786	11,466	**686,945**
15-year (2004 – 2018)	198,779	269,695	129,133	11,474	**609,081**
20-year (1999 – 2018)	171,006	223,534	123,356	11,040	**528,936**
25-year (1994 – 2018)	171,951	200,111	124,542	12,608	**509,212**

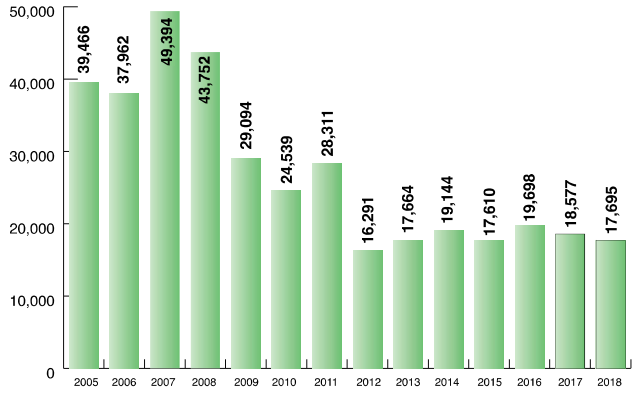
Source: U.S. International Trade Commission (USITC) NOTE: Rifle imports adjusted to exclude HTS codes 9303304010 and 9303308005 (telescopic sights imported with rifles.)

U.S. Firearms Total Exports (1991 – 2018)

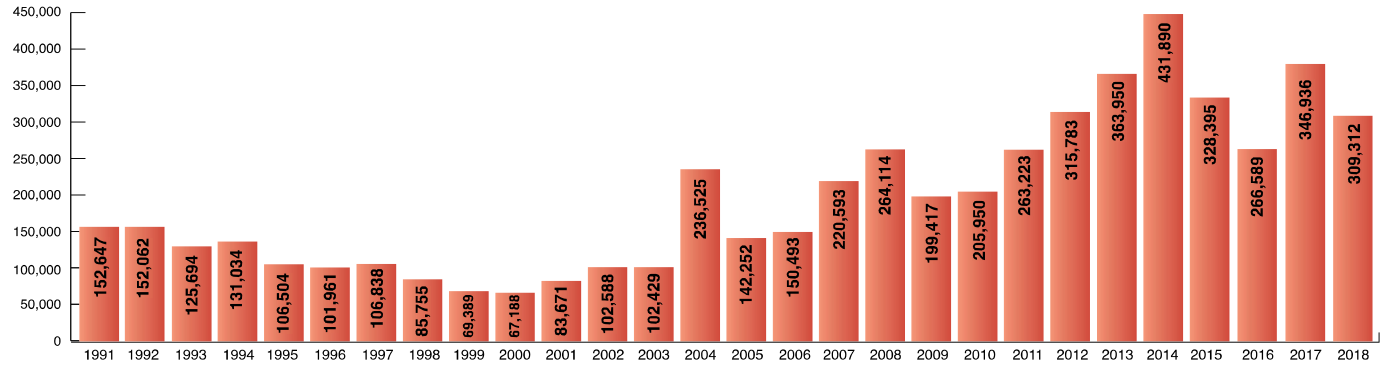
PISTOLS (2005 – 2018)



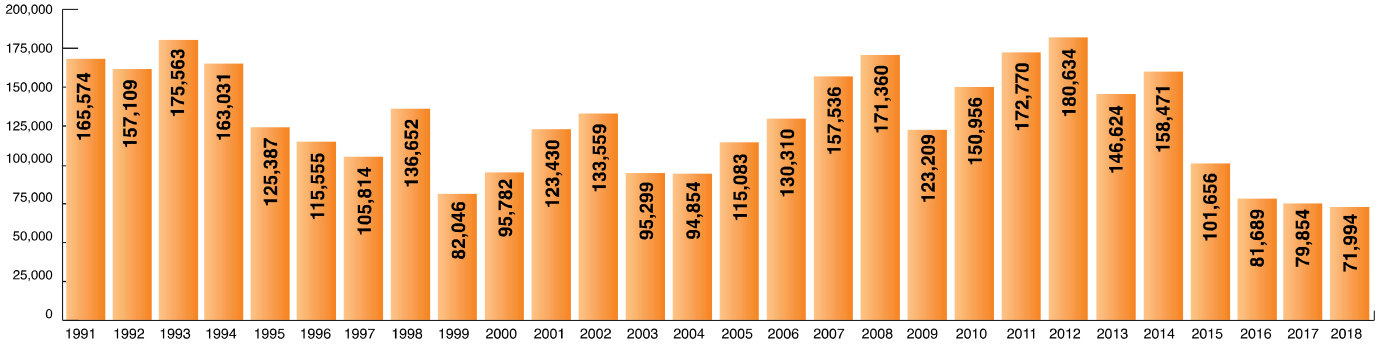
REVOLVERS (2005 – 2018)



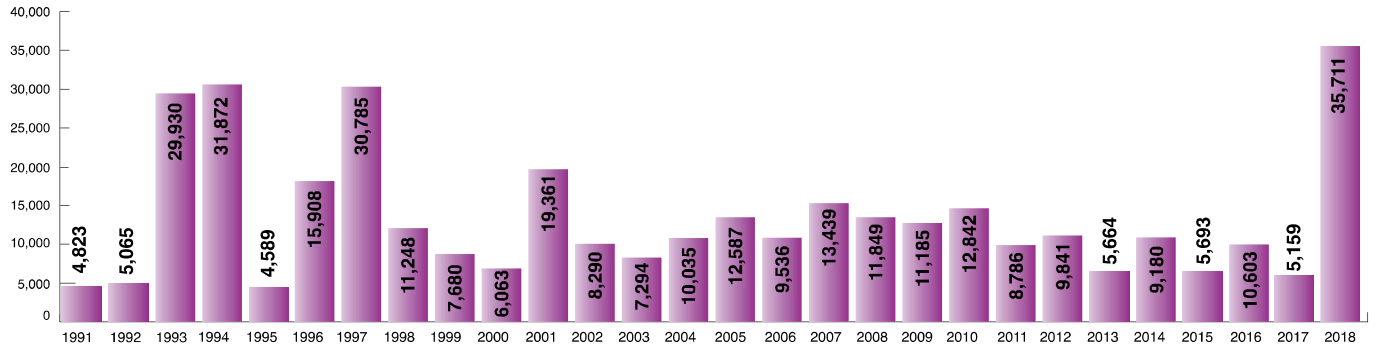
RIFLES (1991 – 2018)



SHOTGUNS (1991 – 2018)



MUZZLELOADERS(1991 – 2018)



Source: U.S. International Trade Commission (USITC)

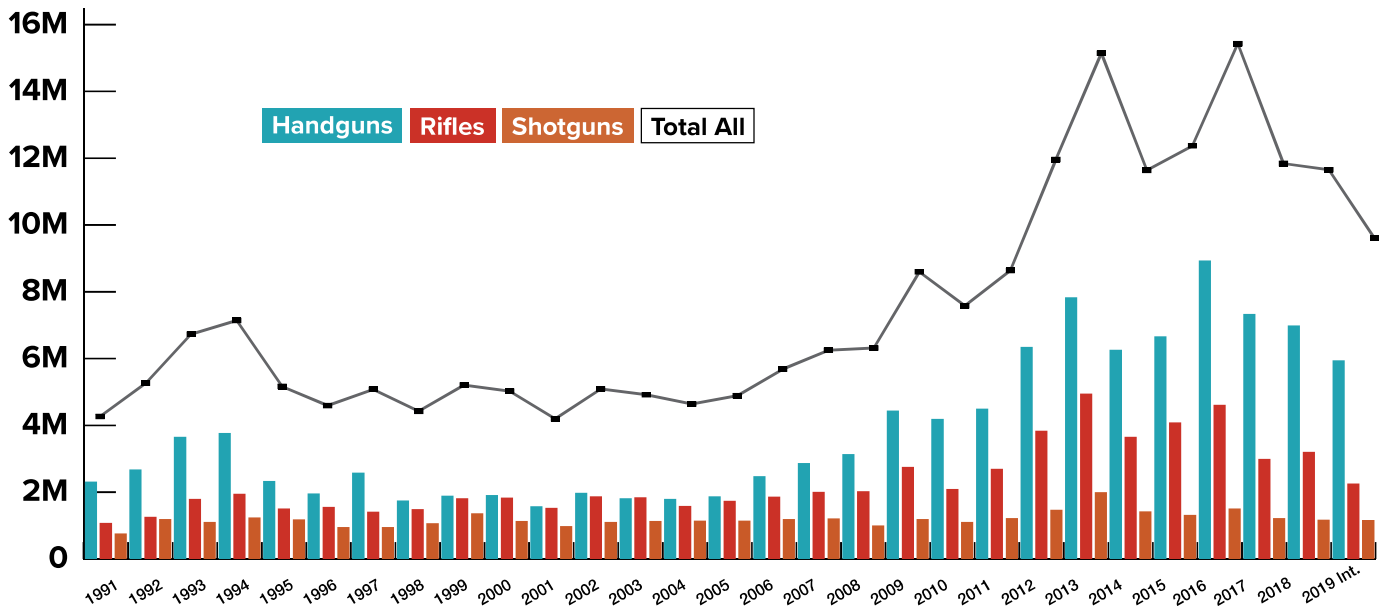
NSSF 000031

Total Firearm Units Produced for the United States Market Annually

YEAR	Handguns Produced in U.S.		Handguns Imported into U.S.		Handguns Exported out of U.S.		Total Handguns	Rifles Produced in U.S.		Rifles Imported into U.S.		Rifles Exported out of U.S.		Total Rifles	Shotguns Produced in U.S.		Shotguns Imported into U.S.		Shotguns Exported out of U.S.		Total Shotguns	TOTAL HANDGUNS, RIFLES & SHOTGUNS	% Change Yoy	YEAR
1991	1,835,218	+	692,282	-	223,248	=	2,304,252	883,482	+	348,765	-	152,647	=	1,079,600	828,426	+	98,645	-	165,574	=	761,497	4,145,349	-	1991
1992	2,138,950	+	876,314	-	210,358	=	2,804,906	1,001,708	+	407,643	-	152,062	=	1,257,289	1,018,204	+	325,345	-	157,109	=	1,186,440	5,248,635	26.6%	1992
1993	2,655,654	+	1,169,123	-	170,378	=	3,654,399	1,173,694	+	749,433	-	125,694	=	1,797,433	1,148,939	+	132,502	-	175,563	=	1,105,878	6,557,710	24.9%	1993
1994	2,590,748	+	1,383,279	-	195,031	=	3,778,996	1,316,607	+	733,277	-	131,034	=	1,918,850	1,254,924	+	142,590	-	163,031	=	1,234,483	6,932,329	5.7%	1994
1995	1,722,948	+	825,127	-	218,826	=	2,329,249	1,441,120	+	286,218	-	106,504	=	1,620,834	1,176,958	+	136,733	-	125,387	=	1,188,304	5,138,387	-25.9%	1995
1996	1,486,472	+	663,801	-	193,647	=	1,956,626	1,424,315	+	234,931	-	101,961	=	1,557,285	925,732	+	145,676	-	115,555	=	955,853	4,469,764	-13.0%	1996
1997	1,406,505	+	1,316,931	-	146,846	=	2,576,590	1,251,341	+	266,869	-	106,838	=	1,411,372	915,978	+	142,067	-	105,814	=	952,231	4,940,193	10.5%	1997
1998	1,284,755	+	590,661	-	124,295	=	1,751,121	1,345,899	+	229,051	-	85,755	=	1,489,195	1,036,520	+	163,663	-	136,652	=	1,063,531	4,303,847	-12.9%	1998
1999	1,331,230	+	677,757	-	116,467	=	1,892,520	1,569,685	+	313,980	-	69,389	=	1,814,276	1,106,995	+	335,489	-	82,046	=	1,360,438	5,067,234	17.7%	1999
2000	1,281,861	+	712,661	-	80,249	=	1,914,273	1,583,042	+	321,316	-	67,188	=	1,837,170	898,442	+	332,704	-	95,782	=	1,135,364	4,886,807	-3.6%	2000
2001	946,979	+	710,958	-	86,041	=	1,571,896	1,284,554	+	322,201	-	83,671	=	1,523,084	679,813	+	428,308	-	123,430	=	984,691	4,079,671	-16.5%	2001
2002	1,088,584	+	971,135	-	82,338	=	1,977,381	1,515,286	+	458,684	-	102,588	=	1,871,382	741,325	+	498,535	-	133,559	=	1,106,301	4,955,064	21.5%	2002
2003	1,121,024	+	762,764	-	73,337	=	1,810,451	1,430,324	+	517,509	-	102,429	=	1,845,404	726,078	+	498,677	-	95,299	=	1,129,456	4,785,311	-3.4%	2003
2004	1,022,610	+	838,856	-	69,316	=	1,792,150	1,325,138	+	491,932	-	236,525	=	1,580,545	731,769	+	507,050	-	94,854	=	1,143,965	4,516,660	-5.6%	2004
2005	1,077,630	+	878,172	-	80,882	=	1,874,920	1,431,372	+	448,862	-	142,252	=	1,737,982	709,313	+	546,261	-	115,083	=	1,140,491	4,753,393	5.2%	2005
2006	1,403,329	+	1,164,973	-	90,944	=	2,477,358	1,496,505	+	516,127	-	150,493	=	1,862,139	714,618	+	607,894	-	130,310	=	1,192,202	5,531,699	16.4%	2006
2007	1,610,998	+	1,387,428	-	133,774	=	2,864,652	1,610,923	+	612,837	-	220,593	=	2,003,167	645,231	+	725,635	-	157,536	=	1,213,330	6,081,149	9.9%	2007
2008	1,819,024	+	1,468,062	-	151,290	=	3,135,796	1,746,139	+	538,283	-	264,114	=	2,020,308	630,710	+	535,960	-	171,360	=	995,310	6,151,414	1.2%	2008
2009	2,415,815	+	2,184,417	-	162,951	=	4,437,281	2,253,103	+	697,800	-	199,417	=	2,751,486	752,699	+	558,679	-	123,209	=	1,188,169	8,376,936	36.2%	2009
2010	2,646,504	+	1,747,635	-	201,231	=	4,192,908	1,830,556	+	466,799	-	205,950	=	2,091,405	743,378	+	509,792	-	150,956	=	1,102,214	7,386,527	-11.8%	2010
2011	3,037,112	+	1,707,313	-	247,738	=	4,496,687	2,305,854	+	656,256	-	263,223	=	2,698,887	862,401	+	530,564	-	172,770	=	1,220,195	8,415,769	13.9%	2011
2012	3,978,438	+	2,591,117	-	220,923	=	6,348,632	3,109,940	+	1,039,716	-	315,783	=	3,833,873	949,010	+	704,828	-	180,634	=	1,473,204	11,655,709	38.5%	2012
2013	5,039,832	+	3,055,329	-	268,024	=	7,827,137	3,996,673	+	1,313,678	-	363,950	=	4,946,401	1,203,072	+	937,952	-	146,624	=	1,994,400	14,767,938	26.7%	2013
2014	4,346,624	+	2,151,591	-	234,329	=	6,263,886	3,379,009	+	706,362	-	431,890	=	3,653,481	935,411	+	648,592	-	158,471	=	1,425,532	11,342,899	-23.2%	2014
2015	4,437,613	+	2,423,182	-	201,390	=	6,659,405	3,701,443	+	708,436	-	328,395	=	4,081,484	777,273	+	644,274	-	101,656	=	1,319,891	12,060,780	6.3%	2015
2016	5,562,218	+	3,614,057	-	240,642	=	8,935,633	4,198,692	+	676,987	-	266,589	=	4,609,090	848,615	+	736,443	-	81,689	=	1,503,369	15,048,092	24.8%	2016
2017	4,411,923	+	3,194,599	-	278,082	=	7,328,440	2,821,945	+	519,400	-	346,936	=	2,994,409	667,350	+	631,998	-	79,854	=	1,219,494	11,542,343	-23.3%	2017
2018	4,507,176	+	2,896,381	-	400,172	=	7,003,385	2,905,178	+	607,293	-	309,312	=	3,203,159	536,119	+	706,648	-	71,994	=	1,170,773	11,377,317	-1.4%	2018
2019 Interim	3,614,982	+	2,561,076	-	230,930	=	5,945,128	1,951,898	+	592,214	-	290,768	=	2,253,344	480,444	+	743,503	-	65,580	=	1,158,367	9,356,839	-17.8%	2019 Int.
TOTALS	71,822,756	+	45,216,981	-	5,133,679	=	111,906,058	57,285,425	+	15,782,859	-	5,723,950	=	67,344,334	24,645,747	+	13,657,007	-	3,677,381	=	34,625,373	213,875,765		

Sources: U.S. Firearm production figures from AFMER, Import and Export figures from USITC.
NOTE: In order to obtain an estimate for the number of total firearms available in the United States in a given year, NSSF combined U.S. firearm production with firearms imported less firearms exported.

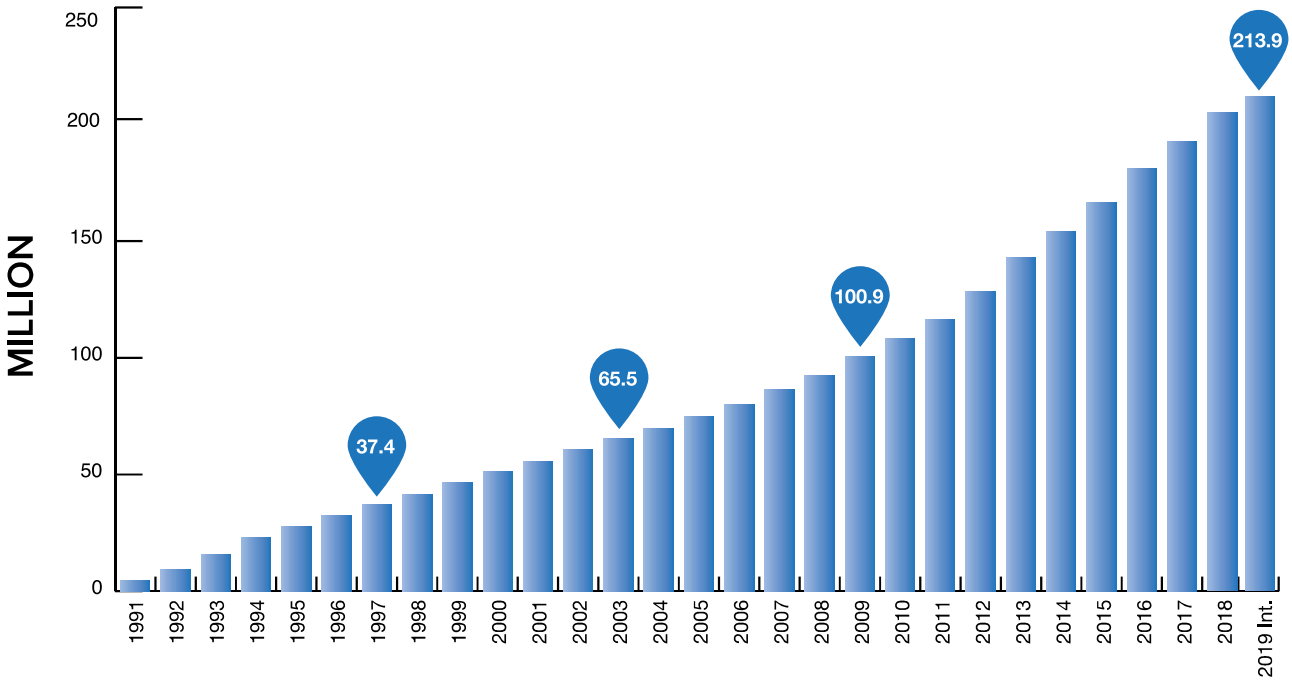
Total Firearm Units Produced for the United States Market Annually



Source: AFMER and U.S. International Trade Commission (USITC)

NSSF 000032

Firearms to U.S. Market (1991 – 2019 Interim)



CUMULATIVE ANNUAL FIREARM PRODUCTION PLUS (+) IMPORTS LESS (-) EXPORTS

Source: AFMER and U.S. International Trade Commission (USITC)

FACT

From 1991 to 2019, more than 213.0 million firearms have been made available to the U.S. market.

Estimated Number of Semi-Automatic Firearms for U.S. Market 1990 - 2018	
Estimated Semi-Automatic Handguns	89,000,000
Estimated Semi-Automatic Shotguns	12,000,000
Estimated Semi-Automatic Rifles	43,400,000
ESTIMATED TOTAL SEMI-AUTOMATIC FIREARMS 1990 - 2018	**144,400,000**
Sources: USITC, ATF AFMER & NSSF estimates	

From 1991 – 2018 the

the violent crime rate has decreased by → **51.3** percent

and unintentional firearm-related fatalities have declined by → **68.2** percent

Sources: 2018 FBI Uniform Crime Reports and National Safety Council Injury Facts (online, for 2018 data)

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KEY FINDINGS

- The latest figures show that 67.9% of U.S. pistol production fell into either the "up to" 9mm calibers (53.7%) or the "up to".50 calibers (14.2%).
- The 2018 top-25 U.S. firearm manufacturers accounted for 89.6% of the U.S. production total for the year.
- Sturm, Ruger & Company, Inc. topped the list in 2018 accounting for 19.9% of total firearm production in the U.S. reported, followed by Smith & Wesson Corporation, 17.3%; Sig Sauer Inc, 8.3%; Remington Arms Company LLC, 5.8%; Savage Arms, Inc., 4.9%; and Maverick Arms, Inc, 4.1%.
- Firearm-ammunition manufacturing accounted for nearly 12,000 employees producing over $3.9 billion in goods shipped in 2018.
- In 2018, the greatest number of imported pistols came from Austria (927,511) representing 35.2% of all imported pistols. Austria was followed by Brazil with 501,995 or 19.0%, Germany at 11.7% with 307,085 units, and 11.6% were imported from Croatia (307,085).
- Brazil was the source of the greatest number of revolvers imported in 2018 (162,703), followed by Italy with 56,311; Philippines 22,816; and 16,224 imported from Germany.
- The greatest number of shotguns imported in 2018 came from Turkey (342,184), Italy (168,368), and China (111,696); and for rifles, Canada (172,406), Brazil (138,931), and Japan (67,840). Spain (104,701) was the source of the highest of number of muzzleloaders imported, followed by Italy (31,060).
- According to USITC data, the U.S. exported 817,189 total firearms in 2018 as compared to 710,031 in 2017 - an increase of 15.1 percent.
- Approximately 48% of all rifles produced in 2018 were modern sporting rifles.
- According to data in reports such as ATF Firearms Commerce in the United States, ATF Annual Firearms Manufacturing and Exportation Reports and Congressional Research Service, the estimated total number of overall firearms in civilian possession is 433.9 million.

SOURCES

Total Production	Detail data source: The 2018 Annual Firearms Manufacturing and Export Report (AFMER). This annual report is prepared by the office of Firearms and Explosives Services Division (FESD), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), Washington D.C. (Historical analysis conducted by NSSF.) For purposes of this report only, "Production" is defined as firearms, including separate frames, receivers, actions or barreled actions, manufactured and disposed of in commerce during each calendar year. The ATF's latest full AFMER is for calendar year 2018, since the agency embargoes the data for a period of one year. Production totals data source: The AFMER 2018 as reported through February 28, 2020 -- reviewed/adjusted by NSSF (adjustments are noted on page 2). **For more information visit** atf.gov/content/about/statistics
Manufacturing Trends	U.S. Census Bureau: Economic Census, 2018 Annual Survey of Manufactures: Tables. The 2018 data is available through the U.S. Census Bureau web site: https://www.census.gov/programs-surveys/asm/data/tables.html Historical analysis conducted by NSSF.
Firearm Imports for Consumption / Total Exports	U.S. Department of Commerce and the U.S. International Trade Commission (USITC) - Interactive Tariff and Trade DataWeb: dataweb.usitc.gov U.S. Census Bureau for corrections to import/export data prior to year 2010 may be found at census.gov/foreign-trade/statistics/corrections/index.html
Manufacturers Export	The 2018 Annual Firearms Manufacturing and Export Report (AFMER) atf.gov/content/about/statistics

NSSF
The Firearm Industry Trade Association

Report provided by NSSF. For additional research materials, please visit nssf.org/research

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EXHIBIT F

TOTAL FIREARM MAGAZINES IN CONSUMER POSSESSION 1990 – 2012. Approx 158 million

Pistol magazines 10 rounds or less. approx. 60 million

Pistol magazines 11 rounds or more. approx. 40 million

Rifle magazines 10 rounds or less. approx. 23 million

Rifle magazines 11 to 29 rounds. approx. 5 million

Rifle magazines 30 rounds or more approx. 30 million

Total pistols = 50 million x 2 magazines = 100 million pistol magazines.

10 rounds or less = 60 million

11 rounds or more = 40 million

Total US produced rifles = 33 million less 4.8 million MSR = 28 million rifles

Allocation of the 28 million rifles?

Other Semi Automatic (not MSR) = 50% or 14 million rifles x 2 magazines = 28 million magazines
Ruger 10/22, Mossberg 22, Marlin 22

Bolt Action = 25%
Winchester Model 70, Remington 700, Marlin X7

Lever Action = 24%
Winchester 94, Marlin 336, Savage 99

Single Shot = 1%

Allocation of 28 million non MSR Semi Auto magazines between:

10 rounds or less = 23 million

11 to 29 = 5 million

30+ = (8.2 million AR/AK x 4 mags = approx 30 million)

[redacted]

EXHIBIT G

Comparison of NSSF Magazine Chart Estimates (in Millions)

		Pistol <11	Pistol 11+	Rifle <11	Rifle 11-29	Rifle 30+	Total	All LCMs	% LCMs
1990-2012		60	40	23	5	30	158	75	47%
1990-2015		81.24	54.16	34.08	8.52	52	230	114.68	50%
	Difference 2012-2015	21.24	14.16	11.08	3.52	22	72	39.68	--
	Percentage Increase 2012-2015	35%	35%	48%	70%	73%	46%	53%	--
1990-2018		106.8	71.2	37.7	9.4	79.2	304.3	159.8	53%
	Difference 2015-2018	25.56	17.04	3.62	0.88	27.2	74.3	45.12	--
	Percentage Increase 2015-2018	31%	31%	11%	10%	52%	32%	39%	--
	Difference 2012-2018	46.8	31.2	14.7	4.4	49.2	146.3	84.8	--
	Percentage Increase 2012-2018	78%	78%	64%	88%	164%	93%	113%	--
1990-2021		174.793	209.145	71.079	60.386	448.369	963.772	717.9	74%
	Difference 2018-2021	67.993	137.945	33.379	50.986	369.169	659.472	558.1	--
	Percentage Increase 2018-2021	64%	194%	89%	542%	466%	217%	349%	--
	Difference 2015-2021	93.553	154.985	36.999	51.866	396.369	733.772	603.22	--
	Percentage Increase 2015-2021	115%	286%	109%	609%	762%	319%	526%	--
	Difference 2012-2021	114.793	169.145	48.079	55.386	418.369	805.772	642.9	--
	Percentage Increase 2012-2021	191%	423%	209%	1108%	1395%	510%	857%	--

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EXHIBIT H

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RAMPAGE NATION

SECURING AMERICA FROM MASS SHOOTINGS

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Table 2.1. The Concept of a Mass Shooting.

Definition of a Mass Shooting:

Any violent attack that results in four or more individuals incurring gunshot wounds.

Categories of Mass Shooting:

1. *Nonfatal*
   Mass shootings in which no one dies.

2. *Fatal*
   Mass shootings in which at least one victim dies.

3. *High-Fatality / Gun Massacre*
   Mass shootings in which six or more victims die.

It's easy to dismiss conceptual discussions and debates as exercises in Ivory Tower intellectualism. But how we identify and think about mass shootings impacts which attacks capture national attention and which are disregarded—something which has far-reaching policy consequences. Thus, coming up with the best possible definition and conceptualization is a vital first step toward explaining and preventing rampage violence. As the Socratic adage reminds us, "The beginning of wisdom is the definition of terms."[43]

EXHIBIT I

Exhibit I
High-Fatality Mass Shootings in the United States, 1991-2022

	Date	City	State	Deaths	Involved AWs (1994 U.S. Definition)	Involved LCMs (1994 U.S. Definition)	Involved LCMs (2023 Ill. Definition)
1	1/26/1991	Chimayo	NM	7	N	N	N
2	8/9/1991	Waddell	AZ	9	N	N	N
3	10/16/1991	Killeen	TX	23	N	Y	Y
4	11/7/1992	Morro Bay and Paso Robles	CA	6	N	N	N
5	1/8/1993	Palatine	IL	7	N	N	N
6	5/16/1993	Fresno	CA	7	Y	Y	Y
7	7/1/1993	San Francisco	CA	8	Y	Y	Y
8	12/7/1993	Garden City	NY	6	N	Y	N
9	4/20/1999	Littleton	CO	13	Y	Y	Y
10	7/12/1999	Atlanta	GA	6	N	U	U
11	7/29/1999	Atlanta	GA	9	N	Y	Y
12	9/15/1999	Fort Worth	TX	7	N	Y	N
13	11/2/1999	Honolulu	HI	7	N	Y	Y
14	12/26/2000	Wakefield	MA	7	Y	Y	Y
15	12/28/2000	Philadelphia	PA	7	N	Y	N
16	8/26/2002	Rutledge	AL	6	N	N	N
17	1/15/2003	Edinburg	TX	6	Y	U	U
18	7/8/2003	Meridian	MS	6	N	N	N
19	8/27/2003	Chicago	IL	6	N	N	N
20	3/12/2004	Fresno	CA	9	N	N	N
21	11/21/2004	Birchwood	WI	6	Y	Y	Y
22	3/12/2005	Brookfield	WI	7	N	Y	N
23	3/21/2005	Red Lake	MN	9	N	Y	N
24	1/30/2006	Goleta	CA	7	N	Y	N
25	3/25/2006	Seattle	WA	6	N	N	N
26	6/1/2006	Indianapolis	IN	7	Y	Y	Y
27	12/16/2006	Kansas City	KS	6	N	N	N
28	4/16/2007	Blacksburg	VA	32	N	Y	N
29	10/7/2007	Crandon	WI	6	Y	Y	Y
30	12/5/2007	Omaha	NE	8	Y	Y	Y
31	12/24/2007	Carnation	WA	6	N	U	U
32	2/7/2008	Kirkwood	MO	6	N	Y	N
33	9/2/2008	Alger	WA	6	N	U	U
34	12/24/2008	Covina	CA	8	N	Y	Y
35	1/27/2009	Los Angeles	CA	6	N	N	N

	Date	City	State	Deaths	Involved AWs (1994 U.S. Definition)	Involved LCMs (1994 U.S. Definition)	Involved LCMs (2023 Ill. Definition)
36	3/10/2009	Kinston, Samson, and Geneva	AL	10	Y	Y	Y
37	3/29/2009	Carthage	NC	8	N	N	N
38	4/3/2009	Binghamton	NY	13	N	Y	Y
39	11/5/2009	Fort Hood	TX	13	N	Y	Y
40	1/19/2010	Appomattox	VA	8	Y	Y	Y
41	8/3/2010	Manchester	CT	8	N	Y	Y
42	1/8/2011	Tucson	AZ	6	N	Y	Y
43	7/7/2011	Grand Rapids	MI	7	N	Y	N
44	8/7/2011	Copley Township	OH	7	N	N	N
45	10/12/2011	Seal Beach	CA	8	N	N	N
46	12/25/2011	Grapevine	TX	6	N	N	N
47	4/2/2012	Oakland	CA	7	N	N	N
48	7/20/2012	Aurora	CO	12	Y	Y	Y
49	8/5/2012	Oak Creek	WI	6	N	Y	Y
50	9/27/2012	Minneapolis	MN	6	N	Y	N
51	12/14/2012	Newtown	CT	27	Y	Y	Y
52	7/26//2013	Hialeah	FL	6	N	Y	Y
53	9/16/2013	Washington	DC	12	N	N	N
54	7/9/2014	Spring	TX	6	N	Y	N
55	9/18/2014	Bell	FL	7	N	U	U
56	2/26/2015	Tyrone	MO	7	N	U	U
57	5/17/2015	Waco	TX	9	N	Y	Y
58	6/17/2015	Charleston	SC	9	N	Y	N
59	8/8/2015	Houston	TX	8	N	U	U
60	10/1/2015	Roseburg	OR	9	N	Y	N
61	12/2/2015	San Bernardino	CA	14	Y	Y	Y
62	2/21/2016	Kalamazoo	MI	6	N	Y	N
63	4/22/2016	Piketon	OH	8	N	U	U
64	6/12/2016	Orlando	FL	49	Y	Y	Y
65	5/27/2017	Brookhaven	MS	8	Y	Y	Y
66	9/10/2017	Plano	TX	8	Y	Y	Y
67	10/1/2017	Las Vegas	NV	60	Y	Y	Y
68	11/5/2017	Sutherland Springs	TX	25	Y	Y	Y
69	2/14/2018	Parkland	FL	17	Y	Y	Y
70	5/18/2018	Santa Fe	TX	10	N	N	N
71	10/27/2018	Pittsburgh	PA	11	Y	Y	Y
72	11/7/2018	Thousand Oaks	CA	12	N	Y	Y
73	5/31/2019	Virginia Beach	VA	12	N	Y	N

	Date	City	State	Deaths	Involved AWs (1994 U.S. Definition)	Involved LCMs (1994 U.S. Definition)	Involved LCMs (2023 Ill. Definition)
74	8/3/2019	El Paso	TX	23	Y	Y	Y
75	8/4/2019	Dayton	OH	9	Y	Y	Y
76	8/31/2019	Midland and Odessa	TX	7	Y	Y	Y
77	3/15/2020	Moncure	NC	6	U	U	U
78	6/4/2020	Valhermoso Springs	AL	7	Y	Y	Y
79	9/7/2020	Aguanga	CA	7	U	U	U
80	2/2/2021	Muskogee	OK	6	N	U	U
81	3/16/2021	Acworth and Atlanta	GA	8	N	Y	Y
82	3/22/2021	Boulder	CO	10	Y	Y	Y
83	4/7/2021	Rock Hill	SC	6	Y	Y	Y
84	4/15/2021	Indianapolis	IN	8	Y	Y	Y
85	5/9/2021	Colorado Springs	CO	6	N	Y	N
86	5/26/2021	San Jose	CA	9	N	Y	N
87	1/23/2022	Milwaukee	WI	6	N	U	U
88	4/3/2022	Sacramento	CA	6	N	Y	Y
89	5/14/2022	Buffalo	NY	10	Y	Y	Y
90	5/24/2022	Uvalde	TX	21	Y	Y	Y
91	7/4/2022	Highland Park	IL	7	Y	Y	Y
92	10/27/2022	Broken Arrow	OK	7	N	U	U
93	11/22/2022	Chesapeake	VA	6	N	U	U

Note: High-fatality mass shootings are mass shootings resulting in 6 or more fatalities, not including the perpetrator(s), regardless of location or motive. For purposes of this Exhibit, a high-fatality mass shooting was coded as involving an assault weapon if at least one of the firearms discharged was defined as an assault weapon in (1) the 1994 federal Assault Weapons Ban or (2) the statutes of the state where the shooting occurred. For purposes of this Exhibit, a high-fatality mass shooting was coded as involving a large-capacity magazine in two different ways. Under the 1994 federal definition, an ammunition-feeding device was coded as an LCM if at least one of the firearms discharged had an ammunition-feeding device with a capacity of more than 10 bullets. Under the 2023 Illinois definition, an ammunition-feeding device was coded as an LCM if at least one of the long guns discharged had an ammunition-feeding device with a capacity of more than 10 bullets or if at least on the handguns discharged had an ammunition-feeding device with a capacity of more than 15 bullets. Incidents in gray shade are those incidents that occurred at a time when and in a state where legal prohibitions on both assault weapons and large-capacity magazines were in effect statewide or nationwide.

Sources: Louis Klarevas, *Rampage Nation: Securing America from Mass Shootings* (2016); Louis Klarevas et al., "The Effect of Large-Capacity Magazine Bans on High-Fatality Mass Shootings," 109 *American Journal of Public Health* 1754 (2019), available at https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2019.305311; and "Gun Violence Archive," available at https://www.gunviolencearchive.org. The Gun Violence Archive was only consulted for identifying high-fatality mass shootings that occurred since January 1, 2018.